



Camp Dresser & McKee Inc.

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November 2, 2000

Ms. Maria Hoye, Esq.
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Subject: Report of Sampling and Analysis of Soil Gas for Methane
Phase 2 Portion of Playa Vista
CDM Project Number 10610-30928.RT.RPT

Dear Ms. Hoye:

Camp Dresser & McKee Inc. (CDM) observed the collection of soil gas samples from 215 locations within Areas A, B, C, and D (Phase 2 Portion) of Playa Vista between October 2, and 10, 2000. The sampling was conducted to comply with of the City of Los Angeles Department of Building and Safety and Planning requirements for baseline conditions characterization for the Phase 2 Environmental Impact Statement and Environmental Impact Report. The sampling was conducted in Areas A, B, and C under a coastal development permit exemption issued by the California Coastal Commission on September 22, 2000, amended October 6, 2000. This report summarizes the sampling and analytical procedures and laboratory testing results. Interpretation of the laboratory results will be communicated separately.

Soil gas sampling and analyses was conducted in accordance with the Protocol developed for the earlier *Sampling and Analysis of Soil Gas for Methane Within Tracts 49104-01, -03, -05, and -06 at Playa Vista* submitted to the City of Los Angeles Department of Building and Safety (LADBS) on August 10, 2000. All analytical testing was accomplished in accordance with *Test Methods for Evaluating Solid Waste Physical/Chemical Parameters, SW-846, Third Edition*.

Sampling locations were spaced on a 300-foot grid in areas of future development in Areas A, B, a small portion of C, and the Phase 2 portion of Area D. Sample locations were spaced on a 500-foot grid in the Ballona Wetlands, which comprises most of Area B. Figure 1 shows the sampling locations.

1.0 Sampling and Analyses

1.1 Sample Collection

The soil gas samples were collected by Scientific Geochemical Services (SGS) of Casper, Wyoming, using a method specified by Exploration Technologies, Inc. (ETI) described in Attachment A. Sampling locations were assigned a four digit identification number.

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Ms. Maria Hoye, Esq
November 2, 2000
Page 2 of 5

which also corresponds to the sample number. Before collecting each sample, two 125 milliliters (ml) and two 22 ml sample bottles fitted with septum-lined caps were prepared by flushing with nitrogen and evacuating to a vacuum of 25 inches of mercury (25" Hg).

Prior to sample collection, a ½-inch outside diameter bar was used to drive a 4-foot deep hole at each of the sampling locations. The bar was removed and a 5-foot, ½-inch outside diameter, 1/8-inch inside diameter hollow stainless steel sampling probe was inserted into the hole, and the tip driven approximately 6 additional inches into undisturbed soil. The probe was fitted with a 3-way plastic valve, a 60 cubic centimeter (cc) syringe to remove the soil gas and fill the sample bottles, and a hypodermic needle to penetrate the septum of the sample bottle to transfer the soil gas into the bottle.

Initially, the 3-way valve was turned so that it was open to the atmosphere and a new syringe was filled with atmospheric air. A 125-ml sample bottle was placed over the needle, penetrating the septum. The vacuum of the bottle was allowed to evacuate the syringe. The syringe was re-filled with atmospheric air and the bottle over pressurized by injecting approximately 60 cc of soil gas. This sample served as a blank. The valve was then turned to receive soil gas. Approximately 15 cc of gas from within the probe was purged using the syringe. The syringe was filled with soil gas and two 22-ml sample bottles were filled in the same manner as the blank. The Jerome 631-X hydrogen sulfide analyzer was attached to the probe and the 3-way valve was turned so soil gas could be withdrawn directly from the subsurface using the air pump within the hydrogen sulfide analyzer. The analyzer was allowed to withdraw soil gas for one minute and the hydrogen sulfide reading was recorded in the field log book. The 3-way valve was returned for use with the syringe and a final soil gas sample was collected with a 125 ml sample bottle in the same manner as the other samples. The septum on each sample bottle was sealed using GE brand Silicone II sealant after each bottle was filled.

The sampling probe was decontaminated between each use with a solution of water and detergent followed by a distilled water rinse. The probe was flushed with compressed air. A clean, unused syringe and hypodermic needle was used and discarded after each sample. Sampling activities were noted and logged in the field book, and samples were labeled, listed on chain of custody forms (provided in Attachment B) and shipped to the analytical laboratory for testing.

Soil gas sampling in much of Area B could not be completed as the water table was too close to the land surface. The intended sample collection depth of 4.5 feet below ground surface was below the water table throughout much of the Ballona Wetland. In addition, no sample was collected at location 6078 (Area A) due to access difficulties.

Ms. Maria Hoye, Esq
November 2, 2000
Page 3 of 5

1.2 Analyses

All samples were tested for light hydrocarbons (C1 to C4 range), and benzene, toluene, ethylbenzene, and xylenes (BTEX) using EPA 8000 and 5000 series methods respectively. All analyses were performed by Microseeps at the University of Pittsburgh Applied Research Center in Pittsburgh, Pennsylvania. Analyte reporting limits for methane are 0.04 parts per million by volume (ppmv), 0.01 ppmv for ethane and ethene, and 0.03 ppmv for propane, propene, i-butane and n-butane. All samples were also analyzed in the field for hydrogen sulfide using a Jerome 631-X hydrogen sulfide analyzer. Ten percent of the soil gas samples were intended for compositional analyses of gases in addition to methane. However, concentrations of methane in the samples were sufficiently low that these analyses were not conducted.

2.0 Analyses Results

2.1 Light Hydrocarbons

The analytical data for light hydrocarbons are provided in attached Table 1. Laboratory reported data are included in Appendix B. The following tables summarize the maximum and minimum concentrations.

Light hydrocarbons in soil gas summary

Statistical Parameter	Light Hydrocarbon statistics [all measurements in parts per million per volume (ppmv)]						
	Methane	Ethane	Ethylene	Propane	Propylene	i-Butane	n-Butane
Frequency of detection	100%	98%	93%	49%	48%	16%	20%
Minimum	0.85	<0.01	<0.01	<0.03	<0.03	<0.03	<0.03
Maximum	159,900	709.93	1.14	2.30	0.92	0.63	0.71

Maximum and minimum detection locations by sample number

Locations with:	Methane	Ethane	Ethylene	Propane	Propylene	i-Butane	n-Butane
Minimum value	8004	6043, 6073, 6076, 7038, 7047, 7054, 7050, 7052, 8004, 7054, 7060, 8009, 8004, 8009, 8039, 9011	6024, 6043, 6073, 6076, 7038, 7047, 7050, 7052, 8004, 7054, 7060, 8009, 8009, 8039, 9011	109 locations	111 locations	181 locations	173 locations
Maximum value	9011	9011	9029	9029	9014	9003	8010

Ms. Maria Hoye, Esq
November 2, 2000
Page 4 of 5

With the exception of methane and a few of the detections of ethane, ethylene, and propane, nearly all C1-C4 compound concentrations were below 1 ppmv for all samples.

Shallow soil gas methane concentrations ranged from 0.48 ppmv in sample 8004 to 159,900 ppmv in sample 9011. The mean methane concentration of all samples was 1,220.16 ppmv. However, the median methane concentration of all samples was 1.92 ppmv, indicating that most of the detections were well below 5 ppmv, but that the data included a few relatively large detections accounting for the larger mean. Two of the 215 soil gas samples had methane concentrations greater than the lower explosive limit of 5% by volume. The two samples were from locations 9003 and 9011. These samples were collected in the south central part of Area D (Figure 1).

The highest methane concentrations in soil gas were detected in Area D at locations 9003, 9004, 9007 and 9011. Methane concentrations in these samples ranged from 18,200 ppmv to 159,900 ppmv. The sampling locations are adjacent to each other, and constitute the area of Playa Vista having soil gas with the highest methane concentration measured during this sampling event. Nearby samples contain methane concentrations ranging from 100 to 480 ppmv. Methane concentrations drop off rapidly to the south and slightly less rapidly to the north and east. Methane concentrations in Areas A, B, and C were less than 9 ppmv.

Ethane concentrations ranged from non-detect at <0.01 ppmv at four locations to 709.93 ppmv at sample location 9011. Most ethane detections were below 1 ppmv. The few higher detections are associated with samples having high methane concentrations. Ethylene concentrations ranged from non-detect at <0.01 ppmv at fourteen locations to 1.14 ppmv at sample location 9029. Most ethylene detections were below 0.10 ppmv. Higher ethylene detections were generally associated with samples having high concentrations of methane. However, sample 9011, which had the highest methane concentration of all samples tested had no detection of ethylene at <0.01 ppmv.

Propane, propylene, isobutane, and n-butane concentrations ranged from non-detect at <0.03 ppmv to 2.30, 0.92, 0.63, and 0.71 ppmv respectively. Less than half of the samples had detectable concentrations of these gases. Concentrations for each of these gases were well below 0.10 ppmv in nearly all samples where the gases were detected.

2.2 *Benzene, Toluene, Ethylbenzene, and Xylenes (BTEX)*

Benzene, toluene, ethyl benzene, and xylene (BTEX) were analyzed at the 215 sampling locations. The laboratory reporting limit for all BTEX compounds was 0.07 ppmv . The laboratory report summarizing the analytical data is provided in Appendix B.

Benzene analyses results ranged from non-detect to 1.05 ppmv in sample 6044. Benzene was detected in only two of the 215 samples tested. Toluene was detected in 15 of the soil

Ms. Maria Hoye, Esq
November 2, 2000
Page 5 of 5

gas samples, with the highest detection at 0.30 in sample 7046. Ethyl benzene was detected in five samples with a maximum concentration of 1.11 ppmv at location 6019. Total xylenes were detected in nine samples with a maximum detection of 0.92 ppmv in sample 6064.

2.3 *Hydrogen Sulfide*

Hydrogen sulfide concentrations were measured using a Jerome 631-X hydrogen sulfide analyzer. The results of the measurements are summarized on Table 2. The instrument detection range is between 0.003 and 50 parts per million (ppm). The instrument can report concentrations at 0.001 and 0.002 ppm, however, according to the manufacturer, these concentrations are below the range of instrument accuracy. Concentrations at many of the sampling locations were reported by the instrument at 0.001 and 0.002 ppm and are considered estimated.

Hydrogen sulfide was detected at 0.003 ppmv or greater in 31 of the 215 samples tested. The highest hydrogen sulfide concentration was 0.023 ppmv at location 9014.

Sincerely,

CAMP DRESSER & MCKEE INC.


Michele Zych, R. G.
Project Manager


Mackey Smith

Vice President

cc: Mr. David Nelson, PCC
Mr. Steve Ross, PCC
Mr. Marc Huffman, PCC

Attachment A – Soil Gas Sampling Methodology
Attachment B – Laboratory Reports and Chain-of-Custody Forms

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Table 1
 Summary of Analytical Results
 Light Hydrocarbons (C1-C4) - Soil Gas Samples
 Playa Vista
 Phase 2 Area

Sample ID	Date Sampled	Methane % V	Methane ppmv	Ethane ppmv	Ethylene ppmv	Propane ppmv	Propylene ppmv	Isobutane ppmv	N-Butane ppmv
Area A									
6001	10/02/00	*	4.42	0.09	0.08	0.04	0.07	<0.03	<0.03
6002	10/02/00	*	4.04	0.57	0.83	0.23	0.67	0.06	0.12
6003	10/02/00	*	1.13	0.04	0.04	<0.03	0.05	<0.03	<0.03
6004	10/03/00	*	2.11	0.08	0.08	0.06	0.05	<0.03	<0.03
6005	10/03/00	*	1.69	0.04	0.05	<0.03	<0.03	<0.03	<0.03
6006	10/03/00	*	1.56	0.05	0.04	<0.03	<0.03	<0.03	<0.03
6007	10/02/00	*	0.99	0.02	0.02	<0.03	<0.03	<0.03	<0.03
6008	10/02/00	*	0.70	0.03	0.02	<0.03	<0.03	<0.03	<0.03
6009	10/02/00	*	1.79	0.08	0.09	0.04	0.07	<0.03	<0.03
6010	10/02/00	*	2.33	0.11	0.09	0.06	0.06	<0.03	<0.03
6011	10/03/00	*	1.09	0.05	0.04	<0.03	<0.03	<0.03	<0.03
6012	10/03/00	*	1.27	0.10	0.08	0.04	0.06	<0.03	<0.03
6013	10/03/00	*	1.38	0.03	0.02	<0.03	<0.03	<0.03	<0.03
6014	10/02/00	*	1.50	0.04	0.02	<0.03	<0.03	<0.03	<0.03
6015	10/02/00	*	1.16	0.04	0.03	<0.03	0.04	<0.03	<0.03
6016	10/02/00	*	1.94	0.06	0.05	0.03	0.05	<0.03	<0.03
6017	10/02/00	*	1.16	0.04	0.03	<0.03	<0.03	<0.03	<0.03
6018	10/03/00	*	1.21	0.04	0.02	<0.03	<0.03	<0.03	<0.03
6019	10/03/00	*	1.46	0.06	0.04	0.03	<0.03	<0.03	<0.03
6020	10/03/00	*	1.59	0.05	0.05	0.03	<0.03	<0.03	<0.03
6021	10/02/00	*	1.48	0.02	0.02	<0.03	<0.03	<0.03	<0.03
6022	10/02/00	*	1.44	0.05	0.04	<0.03	0.05	<0.03	<0.03
6023	10/03/00	*	1.50	0.04	0.02	<0.03	<0.03	<0.03	<0.03
6024	10/03/00	*	0.54	0.01	<0.01	<0.03	<0.03	<0.03	<0.03
6025	10/03/00	*	1.30	0.09	0.09	0.03	0.08	<0.03	<0.03
6026	10/03/00	*	1.36	0.06	0.04	0.03	<0.03	<0.03	<0.03
6027	10/02/00	*	1.30	0.03	0.02	<0.03	<0.03	<0.03	<0.03
6028	10/02/00	*	1.11	0.03	0.02	<0.03	<0.03	<0.03	0.08
6029	10/03/00	*	2.85	0.06	0.08	0.04	0.06	<0.03	0.07
6030	10/03/00	*	1.27	0.09	0.09	0.03	0.06	<0.03	<0.03
6031	10/03/00	*	1.62	0.04	0.04	<0.03	<0.03	<0.03	<0.03
6032	10/03/00	*	1.23	0.04	0.04	<0.03	<0.03	<0.03	<0.03
6033	10/03/00	*	1.48	0.08	0.06	0.03	0.05	<0.03	<0.03
6034	10/03/00	*	2.00	0.08	0.08	0.04	<0.03	<0.03	<0.03
6035	10/03/00	*	1.56	0.09	0.09	0.04	0.06	<0.03	<0.03
6036	10/03/00	*	1.44	0.07	0.07	0.03	<0.03	<0.03	<0.03
6037	10/03/00	*	1.48	0.09	0.08	0.04	0.07	<0.03	<0.03
6038	10/03/00	*	1.38	0.02	0.04	<0.03	<0.03	<0.03	<0.03
6039	10/03/00	*	1.88	0.06	0.06	0.03	0.06	<0.03	<0.03
6040	10/03/00	*	1.59	0.08	0.08	0.04	0.05	<0.03	<0.03
6041	10/03/00	*	4.10	0.52	0.32	0.23	0.23	0.03	<0.03
6042	10/03/00	*	3.94	0.37	0.25	0.14	0.17	0.03	<0.03
6043	10/04/00	*	0.78	<0.01	<0.01	<0.03	<0.03	<0.03	<0.03
6044	10/04/00	*	1.75	0.06	0.06	<0.03	<0.03	<0.03	<0.03
6045	10/04/00	*	1.24	0.07	0.06	<0.03	<0.03	<0.03	<0.03
6046	10/04/00	*	1.56	0.06	0.06	<0.03	<0.03	<0.03	<0.03
6047	10/04/00	*	1.96	0.09	0.07	0.04	0.06	<0.03	<0.03
6048	10/04/00	*	1.96	0.06	0.06	<0.03	<0.03	<0.03	<0.03
6049	10/04/00	*	1.34	0.04	0.03	<0.03	<0.03	<0.03	<0.03
6050	10/04/00	*	1.49	0.02	0.02	<0.03	<0.03	<0.03	<0.03
6051	10/04/00	*	1.46	0.08	0.08	0.04	0.06	<0.03	<0.03
6052	10/04/00	*	1.30	0.06	0.05	<0.03	<0.03	<0.03	<0.03
6053	10/04/00	*	1.71	0.06	0.06	0.03	0.03	<0.03	<0.03
6054	10/04/00	*	1.28	0.02	0.03	<0.03	<0.03	<0.03	<0.03
6055	10/04/00	*	2.11	0.06	0.06	<0.03	<0.03	<0.03	<0.03
6056	10/04/00	*	2.10	0.05	0.08	<0.03	0.05	<0.03	<0.03
6057	10/04/00	*	1.08	0.05	0.05	<0.03	<0.03	<0.03	<0.03

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6058	10/04/00	*	1.07	0.05	0.06	<0.03	<0.03	<0.03	<0.03
6059	10/04/00	*	1.42	0.09	0.07	<0.03	0.06	<0.03	<0.03
6060	10/04/00	*	2.07	0.05	0.04	<0.03	<0.03	<0.03	<0.03
6061	10/04/00	*	1.20	0.02	0.01	<0.03	<0.03	<0.03	<0.03
6062	10/04/00	*	0.68	0.04	0.02	<0.03	<0.03	<0.03	<0.03
6063	10/04/00	*	2.38	0.13	0.19	0.06	0.18	<0.03	<0.03
6064	10/04/00	*	1.20	0.05	0.05	<0.03	<0.03	<0.03	<0.03
6065	10/04/00	*	0.97	0.01	0.01	<0.03	<0.03	<0.03	<0.03
6066	10/04/00	*	1.24	0.06	0.05	<0.03	<0.03	<0.03	<0.03
6067	10/04/00	*	2.06	0.08	0.04	<0.03	0.06	<0.03	<0.03
6068	10/04/00	*	1.10	0.07	0.02	<0.03	<0.03	<0.03	<0.03
6069	10/04/00	*	2.51	0.27	0.27	0.10	0.19	<0.03	<0.03
6070	10/04/00	*	0.91	0.04	0.04	<0.03	<0.03	<0.03	<0.03
6071	10/04/00	*	1.22	0.06	0.03	<0.03	<0.03	<0.03	<0.03
6072	10/04/00	*	1.08	0.03	0.03	<0.03	<0.03	<0.03	<0.03
6073	10/04/00	*	1.71	0.07	<0.01	<0.03	<0.03	<0.03	<0.03
6074	10/04/00	*	1.47	0.08	0.03	0.03	0.05	<0.03	<0.03
6075	10/04/00	*	1.67	0.03	0.03	<0.03	<0.03	<0.03	<0.03
6076	10/04/00	*	1.95	0.04	<0.01	<0.03	<0.03	<0.03	<0.03
6077	10/04/00	*	1.74	0.12	0.03	0.06	<0.03	<0.03	<0.03
Area B									
7026	10/10/00	*	8.63	0.10	0.07	0.04	0.05	<0.03	0.19
7031	10/07/00	*	0.79	0.03	0.01	<0.03	<0.03	<0.03	0.04
7032	10/10/00	*	2.14	0.06	0.05	<0.03	<0.03	<0.03	<0.03
7033	10/10/00	*	11.12	0.04	0.02	<0.03	<0.03	<0.03	0.21
7035	10/07/00	*	3.11	0.09	0.07	0.04	0.05	<0.03	<0.03
7036	10/10/00	*	5.52	0.03	0.03	<0.03	<0.03	<0.03	0.07
7038	10/09/00	*	2.22	<0.01	<0.01	<0.03	<0.03	<0.03	0.08
7041	10/09/00	*	2.32	0.03	0.01	<0.03	<0.03	<0.03	<0.03
7042	10/09/00	*	2.51	0.05	0.01	<0.03	<0.03	<0.03	0.65
7043	10/09/00	*	1.87	0.02	0.01	<0.03	<0.03	<0.03	0.16
7045	10/09/00	*	5.39	0.05	0.03	<0.03	<0.03	<0.03	<0.03
7046	10/09/00	*	2.82	0.03	0.02	<0.03	<0.03	<0.03	<0.03
7047	10/09/00	*	3.52	0.07	<0.01	0.04	<0.03	<0.03	0.07
7048	10/09/00	*	3.09	0.09	0.02	<0.03	<0.03	<0.03	0.12
7049	10/09/00	*	2.93	0.18	0.03	0.06	<0.03	<0.03	0.12
7050	10/09/00	*	0.91	0.02	<0.01	<0.03	<0.03	<0.03	<0.03
7051	10/09/00	*	2.36	0.04	0.02	<0.03	<0.03	<0.03	<0.03
7052	10/09/00	*	2.28	0.08	<0.01	0.03	<0.03	<0.03	<0.03
7053	10/07/00	*	1.38	0.02	0.01	<0.03	<0.03	<0.03	<0.03
7054	10/07/00	*	1.21	<0.01	<0.01	<0.03	<0.03	<0.03	<0.03
7055	10/07/00	*	2.51	0.04	0.01	<0.03	<0.03	<0.03	<0.03
7057	10/07/00	*	1.72	0.03	0.01	<0.03	<0.03	<0.03	<0.03
7058	10/07/00	*	6.97	2.14	0.14	1.70	0.71	0.14	<0.03
7059	10/07/00	*	1.71	0.05	0.04	<0.03	<0.03	<0.03	<0.03
7060	10/6/00	*	1.80	0.03	<0.01	<0.03	<0.03	<0.03	<0.03
7061	10/6/00	*	1.92	0.06	0.02	<0.03	<0.03	<0.03	<0.03
7062	10/07/00	*	1.87	0.08	0.04	<0.03	0.03	<0.03	<0.03
7063	10/6/00	*	2.60	0.14	0.07	0.05	0.04	<0.03	<0.03
7064	10/6/00	*	1.44	0.06	0.02	<0.03	<0.03	<0.03	<0.03
7065	10/07/00	*	1.75	0.03	0.02	<0.03	<0.03	<0.03	<0.03
7066	10/6/00	*	3.50	0.24	0.08	0.09	0.07	0.03	<0.03
7067	10/6/00	*	5.65	0.27	0.12	0.11	0.09	<0.03	<0.03
7068	10/07/00	*	1.92	0.03	0.02	<0.03	<0.03	<0.03	<0.03
7069	10/6/00	*	2.24	0.01	0.01	<0.03	<0.03	<0.03	<0.03
7070	10/6/00	*	1.40	0.09	0.07	0.03	0.05	<0.03	<0.03
7071	10/07/00	*	2.13	0.04	0.01	<0.03	<0.03	<0.03	<0.03
7072	10/07/00	*	1.11	0.07	0.03	<0.03	<0.03	<0.03	<0.03

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Table 1
 Summary of Analytical Results
 Light Hydrocarbons (C1-C4) - Soil Gas Samples
 Playa Vista
 Phase 2 Area

Sample ID	Date Sampled	Methane % V	Methane ppmv	Ethane ppmv	Ethylene ppmv	Propane ppmv	Propylene ppmv	Isobutane ppmv	N-Butane ppmv
7073	10/6/00	*	2.03	0.03	0.02	< 0.03	< 0.03	< 0.03	< 0.03
7074	10/6/00	*	1.80	0.10	0.09	0.04	0.07	< 0.03	< 0.03
7075	10/07/00	*	2.34	0.02	0.01	< 0.03	< 0.03	< 0.03	< 0.03
7076	10/07/00	*	1.51	0.04	0.03	< 0.03	< 0.03	< 0.03	< 0.03
9077	10/9/00	*	1.55	0.07	0.03	< 0.03	< 0.03	< 0.03	< 0.03
9078	10/7/00	*	1.26	0.01	0.01	< 0.03	< 0.03	< 0.03	< 0.03
Area C									
8001	10/05/00	*	0.64	0.01	0.02	< 0.03	< 0.03	< 0.03	< 0.03
8002	10/05/00	*	1.15	0.04	0.02	< 0.03	< 0.03	< 0.03	0.08
8003	10/05/00	*	1.56	0.06	0.03	< 0.03	< 0.03	< 0.03	0.07
8004	10/05/00	*	0.48	< 0.01	< 0.01	< 0.03	< 0.03	< 0.03	< 0.03
8005	10/05/00	*	0.99	0.06	0.04	< 0.03	< 0.03	< 0.03	< 0.03
8006	10/05/00	*	1.10	0.03	0.02	< 0.03	< 0.03	< 0.03	< 0.03
8007	10/6/00	*	2.37	0.12	0.18	0.05	0.12	< 0.03	< 0.03
8008	10/6/00	*	5.32	0.40	0.66	0.17	0.45	< 0.03	< 0.03
8009	10/05/00	*	0.84	< 0.01	< 0.01	< 0.03	< 0.03	< 0.03	< 0.03
8010	10/05/00	*	0.66	0.06	0.04	< 0.03	< 0.03	< 0.03	< 0.03
8011	10/6/00	*	1.13	0.06	0.03	< 0.03	< 0.03	< 0.03	< 0.03
8012	10/05/00	*	1.89	0.14	0.16	0.05	0.10	< 0.03	< 0.03
8013	10/6/00	*	1.85	0.13	0.04	0.04	< 0.03	< 0.03	< 0.03
8014	10/6/00	*	2.87	0.20	0.04	< 0.03	< 0.03	< 0.03	< 0.03
8015	10/05/00	*	1.53	0.05	0.02	< 0.03	< 0.03	< 0.03	< 0.03
8016	10/05/00	*	0.90	0.02	0.01	< 0.03	< 0.03	< 0.03	< 0.03
8017	10/6/00	*	2.09	0.09	0.03	< 0.03	< 0.03	< 0.03	< 0.03
8018	10/6/00	*	2.42	0.10	0.07	0.04	0.05	< 0.03	< 0.03
8019	10/6/00	*	0.93	0.03	0.01	< 0.03	< 0.03	< 0.03	< 0.03
8020	10/6/00	*	4.30	0.06	0.03	< 0.03	< 0.03	< 0.03	< 0.03
8021	10/6/00	*	1.64	0.04	0.03	< 0.03	< 0.03	< 0.03	< 0.03
8022	10/6/00	*	5.43	0.59	0.82	0.27	0.66	< 0.03	< 0.03
8023	10/05/00	*	0.75	0.05	0.02	< 0.03	< 0.03	< 0.03	< 0.03
8024	10/6/00	*	2.42	0.08	0.05	< 0.03	0.03	< 0.03	< 0.03
8025	10/6/00	*	3.50	0.18	0.10	0.05	0.07	< 0.03	< 0.03
8026	10/05/00	*	1.07	0.04	0.04	< 0.03	< 0.03	< 0.03	< 0.03
8027	10/6/00	*	2.49	0.09	0.04	0.04	0.03	< 0.03	< 0.03
8028	10/6/00	*	2.14	0.13	0.06	0.05	0.05	< 0.03	< 0.03
8029	10/6/00	*	2.79	0.07	0.05	< 0.03	0.04	< 0.03	< 0.03
8030	10/05/00	*	1.38	0.05	0.05	< 0.03	< 0.03	< 0.03	< 0.03
8031	10/6/00	*	1.48	0.02	0.02	< 0.03	< 0.03	< 0.03	< 0.03
8032	10/05/00	*	2.11	0.12	0.08	0.04	0.05	< 0.03	< 0.03
8033	10/05/00	*	1.58	0.10	0.05	0.03	< 0.03	< 0.03	< 0.03
8034	10/05/00	*	0.89	0.05	0.03	< 0.03	< 0.03	< 0.03	0.06
8035	10/05/00	*	0.82	0.03	0.01	< 0.03	< 0.03	< 0.03	< 0.03
8036	10/05/00	*	3.14	0.15	0.10	0.06	0.05	< 0.03	< 0.03
8037	10/05/00	*	2.28	0.09	0.03	0.03	< 0.03	< 0.03	< 0.03
8038	10/05/00	*	0.92	0.02	< 0.01	< 0.03	< 0.03	< 0.03	< 0.03
8039	10/05/00	*	0.65	0.04	0.02	< 0.03	< 0.03	< 0.03	< 0.03
8040	10/05/00	*	1.74	0.10	0.06	0.05	0.04	< 0.03	< 0.03
8041	10/05/00	*	1.92	0.07	0.09	0.03	0.09	< 0.03	< 0.03
8042	10/05/00	*	0.71	0.03	0.02	< 0.03	< 0.03	< 0.03	< 0.03
8043	10/05/00	*	1.30	0.05	0.04	< 0.03	< 0.03	< 0.03	< 0.03
Area D									
9002	10/11/00	*	2.34	0.12	0.11	0.04	0.10	< 0.03	< 0.03
9003	10/10/00	5.43	*	249.54	0.18	1.30	0.28	0.63	0.06
9004	10/10/00	1.82	*	96.38	0.22	2.12	< 0.03	0.45	< 0.03
9005A**	10/11/00	*	93.8	0.52	0.24	0.17	0.15	0.05	0.07
9005B**	10/11/00	*	7.70	0.71	0.38	0.27	0.28	0.07	0.11
9006	10/11/00	*	6.84	0.32	0.32	0.12	0.20	< 0.03	< 0.03
9007	10/10/00	1.82	*	210.26	0.18	0.26	0.15	0.28	< 0.03

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Table 1
 Summary of Analytical Results
 Light Hydrocarbons (C1-C4) - Soil Gas Samples
 Playa Vista
 Phase 2 Area

Sample ID	Date Sampled	Methane % V	Methane ppmv	Ethane ppmv	Ethylene ppmv	Propane ppmv	Propylene ppmv	Isobutane ppmv	N-Butane ppmv
9008	10/10/00	*	64.24	0.55	0.30	0.22	0.23	0.05	< 0.03
9009	10/11/00	*	6.35	0.75	0.45	0.29	0.37	0.08	0.13
9010	10/11/00	*	4.78	0.31	0.30	0.10	0.20	<0.03	<0.03
9011	10/10/00	15.99	*	709.93	< 0.01	1.88	0.12	0.60	< 0.03
9012	10/10/00	*	6.31	0.60	0.76	0.22	0.57	<0.03	0.11
9013	10/11/00	*	7.88	0.58	0.41	0.26	0.32	0.06	0.12
9014	10/11/00	*	194.9	1.19	0.97	0.57	0.92	0.11	0.20
9015	10/10/00	*	2.86	0.19	0.15	0.07	0.11	<0.03	< 0.03
9016	10/10/00	*	409.20	0.31	0.19	0.20	0.15	0.06	< 0.03
9017	10/11/00	*	35.2	0.54	0.33	0.21	0.24	0.04	0.06
9018	10/11/00	*	9.37	0.50	0.12	0.27	0.08	0.07	0.10
9019	10/10/00	*	2.06	0.06	0.05	<0.03	<0.03	<0.03	< 0.03
9020	10/10/00	0.48	*	0.59	0.35	0.59	0.25	0.15	0.03
9021	10/11/00	*	59.2	0.54	0.32	0.23	0.21	0.07	0.10
9022	10/11/00	0.09	*	0.77	0.41	0.34	0.26	0.08	0.14
9023	10/10/00	*	3.29	0.15	0.11	0.06	0.05	<0.03	< 0.03
9024	10/10/00	0.41	*	0.61	0.33	0.47	0.24	0.10	< 0.03
9025	10/11/00	*	8.94	0.69	0.42	0.30	0.32	0.07	0.13
9026	10/11/00	*	27.2	0.54	0.28	0.22	0.19	0.05	0.10
9027	10/10/00	*	3.62	0.18	0.07	0.07	0.07	0.04	< 0.03
9028	10/11/00	0.10	*	0.22	0.11	0.25	0.07	0.08	0.10
9029	10/11/00	0.37	*	6.42	1.14	2.30	0.77	0.44	0.70
9030	10/11/00	*	7.21	0.50	0.27	0.13	0.19	0.05	0.08
9031	10/10/00	*	2.45	0.10	0.10	0.04	0.06	<0.03	< 0.03
9032	10/11/00	*	1.61	0.13	0.11	0.06	0.10	<0.03	< 0.03
9033	10/11/00	*	4.18	0.21	0.13	0.10	0.09	<0.03	0.04
9034	10/11/00	*	8.75	0.44	0.17	0.09	0.11	<0.03	< 0.03
9035	10/11/00	*	4.99	0.40	0.49	0.16	0.32	<0.03	0.05
9036	10/12/00	*	4.72	0.32	0.24	0.10	0.16	<0.03	< 0.03
9037	10/11/00	*	4.61	0.34	0.23	0.09	0.16	<0.03	0.04
9038	10/12/00	*	3.89	0.20	0.21	0.07	0.13	<0.03	< 0.03
9039	10/11/00	*	7.68	0.54	0.23	0.15	0.21	0.04	0.06
9040	10/12/00	*	69.6	0.38	0.30	0.26	0.24	0.11	0.11
9041	10/11/00	*	20.3	0.23	0.17	0.08	0.12	<0.03	< 0.03
9042	10/12/00	*	2.01	0.28	0.21	0.12	0.17	<0.03	< 0.03
9043	10/11/00	*	4.49	0.24	0.16	0.09	0.11	<0.03	< 0.03
9044	10/12/00	*	3.40	0.14	0.12	0.05	0.11	0.06	< 0.03
9045	10/11/00	*	2.85	0.12	0.06	0.04	0.06	0.04	< 0.03
9046	10/11/00	*	1.80	0.15	0.22	0.07	0.17	<0.03	< 0.03
9047	10/11/00	*	1.21	0.14	0.10	0.04	0.09	<0.03	< 0.03
9048	10/12/00	*	2.67	0.18	0.05	0.10	0.08	0.05	0.06
9049	10/12/00	*	2.70	0.22	0.15	0.08	0.10	<0.03	< 0.03
9050	10/12/00	*	168	0.37	0.19	0.16	0.22	0.04	0.06
9051	10/12/00	*	2.05	0.20	0.14	0.09	0.11	<0.03	< 0.03
9052	10/12/00	*	1.20	0.08	0.06	0.03	0.04	<0.03	< 0.03
9053	10/12/00	*	1.98	0.09	0.04	0.05	<0.03	<0.03	< 0.03
9054	10/12/00	*	1.29	0.12	0.07	0.05	0.09	<0.03	< 0.03
9055	10/12/00	0.05	*	1.66	0.06	0.14	0.05	0.25	0.07

Notes:

ppmv - parts per million per volume

% V - percent volume

* - concentration for methane listed under other units

- indicates not detected above reporting limits shown

** Sample 9001 was mis-labeled in the field as 2205. The labatory renamed the two samples labeled as 9005 as 9005A and 9005B.

• Sample 9001 was mis-labeled in the field as 35-35. This lab is a copy, renamed the sample.

The actual identity of samples 9001 and 9005 could not be determined.

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Table 2
Summary of Hydrogen Sulfide Concentrations
Soil Gas Samples
Phase 2 Project Area
Playa Vista

Sample ID	Date Sampled	H ₂ S Concentration ppm
Tract 03		
6001	10/02/00	0.000
6002	10/02/00	0.000
6003	10/02/00	0.000
6004	10/03/00	0.000
6005	10/03/00	0.000
6006	10/03/00	0.000
6007	10/02/00	0.000
6008	10/02/00	0.000
6009	10/02/00	0.000
6010	10/02/00	0.000
6011	10/03/00	0.000
6012	10/03/00	0.001
6013	10/03/00	0.000
6014	10/02/00	0.000
6015	10/02/00	0.000
6016	10/02/00	0.000
6017	10/02/00	0.000
6018	10/03/00	0.000
6019	10/03/00	0.001
6020	10/03/00	0.001
6021	10/02/00	0.000
6022	10/02/00	0.001
6023	10/03/00	0.000
6024	10/03/00	0.000
6025	10/03/00	0.001
6026	10/03/00	0.000
6027	10/02/00	0.000
6028	10/02/00	0.000
6029	10/03/00	0.000
6030	10/03/00	0.000
6031	10/03/00	0.000
6032	10/03/00	0.000
6033	10/03/00	0.002
6034	10/03/00	0.000
6035	10/03/00	0.000
6036	10/03/00	0.000
6037	10/03/00	0.001
6038	10/03/00	0.000
6039	10/03/00	0.000
6040	10/03/00	0.000
6041	10/03/00	0.004
6042	10/03/00	0.000
6043	10/03/00	0.000

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Table 2
Summary of Hydrogen Sulfide Concentrations
Soil Gas Samples
Phase 2 Project Area
Playa Vista

Sample ID	Date Sampled	H ₂ S Concentration ppm
6044	10/04/00	0.000
6045	10/04/00	0.000
6046	10/04/00	0.000
6047	10/04/00	0.002
6048	10/04/00	0.000
6049	10/04/00	0.000
6050	10/04/00	0.000
6051	10/04/00	0.000
6052	10/04/00	0.000
6053	10/04/00	0.000
6054	10/04/00	0.000
6055	10/04/00	0.000
6056	10/04/00	0.000
6057	10/04/00	0.001
6058	10/04/00	0.000
6059	10/04/00	0.000
6060	10/04/00	0.000
6061	10/04/00	0.000
6062	10/04/00	0.000
6063	10/04/00	0.000
6064	10/04/00	0.004
6065	10/04/00	0.000
6066	10/04/00	0.000
6067	10/04/00	0.000
6068	10/04/00	0.000
6069	10/04/00	0.000
6070	10/04/00	0.002
6071	10/04/00	0.000
6072	10/04/00	0.000
6073	10/04/00	0.002
6074	10/04/00	0.000
6075	10/04/00	0.000
6076	10/04/00	0.001
6077	10/04/00	0.000
Area B		
7026	10/10/00	0.000
7031	10/07/00	0.000
7032	10/10/00	0.000
7033	10/10/00	0.000
7035	10/07/00	0.000
7036	10/10/00	No Reading Taken - Water
7041	10/09/00	No Reading Taken - Water
7042	10/09/00	0.000
7043	10/09/00	No Reading Taken - Water

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Table 2
Summary of Hydrogen Sulfide Concentrations
Soil Gas Samples
Phase 2 Project Area
Playa Vista

Sample ID	Date Sampled	H ₂ S Concentration ppm
7045	10/09/00	0.000
7046	10/09/00	0.000
7047	10/09/00	0.000
7048	10/09/00	0.000
7049	10/09/00	0.000
7050	10/09/00	0.000
7051	10/09/00	0.000
7052	10/07/00	0.000
7052	10/09/00	0.000
7053	10/07/00	0.000
7054	10/07/00	0.000
7055	10/07/00	0.000
7058	10/07/00	0.000
7059	10/07/00	0.000
7060	10/06/00	0.000
7061	10/06/00	0.000
7062	10/07/00	0.000
7063	10/06/00	0.000
7064	10/06/00	0.000
7065	10/07/00	0.000
7066	10/06/00	0.001
7067	10/06/00	0.002
7068	10/07/00	0.000
7069	10/06/00	0.000
7070	10/06/00	0.000
7071	10/07/00	0.000
7072	10/07/00	0.000
7073	10/06/00	0.000
7074	10/06/00	0.000
7075	10/07/00	0.000
7076	10/07/00	0.000
9077	10/09/00	0.000
9078	10/07/00	0.000
Area C		
8001	10/05/00	0.000
8002	10/05/00	0.000
8003	10/05/00	0.000
8004	10/05/00	0.000
8005	10/05/00	0.000
8006	10/05/00	0.000
8007	10/06/00	0.000
8008	10/06/00	0.000
8009	10/05/00	0.000
8010	10/05/00	0.000

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Table 2
Summary of Hydrogen Sulfide Concentrations
Soil Gas Samples
Phase 2 Project Area
Playa Vista

Sample ID	Date Sampled	H ₂ S Concentration ppm
8011	10/06/00	0.002
8012	10/05/00	0.000
8013	10/06/00	0.000
8014	10/06/00	0.007
8015	10/05/00	0.000
8016	10/05/00	0.000
8017	10/06/00	0.000
8018	10/06/00	0.000
8019	10/06/00	0.000
8020	10/06/00	0.000
8021	10/06/00	0.002
8022	10/06/00	0.002
8023	10/05/00	0.000
8024	10/06/00	0.002
8025	10/06/00	0.003
8026	10/05/00	0.000
8027	10/06/00	0.003
8028	10/06/00	0.000
8029	10/06/00	0.000
8030	10/05/00	0.000
8031	10/06/00	0.017
8032	10/05/00	0.002
8033	10/05/00	0.000
8034	10/05/00	0.000
8035	10/05/00	0.000
8036	10/05/00	0.002
8037	10/05/00	0.000
8038	10/05/00	0.000
8039	10/05/00	0.000
8040	10/05/00	0.002
8041	10/05/00	0.000
8042	10/05/00	0.000
8043	10/05/00	0.000
Area D		
9001	10/11/00	0.004
9002	10/11/00	0.007
9003	10/10/00	0.000
9004	10/10/00	0.001
9005	10/11/00	0.004
9006	10/11/00	0.010
9007	10/10/00	0.005
9008	10/10/00	0.000
9009	10/11/00	0.000
9010	10/11/00	0.004

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Table 2
Summary of Hydrogen Sulfide Concentrations
Soil Gas Samples
Phase 2 Project Area
Playa Vista

Sample ID	Date Sampled	H ₂ S Concentration ppm
9011	10/10/00	0.003
9012	10/10/00	0.002
9013	10/11/00	0.005
9014	10/11/00	0.023
9015	10/10/00	0.000
9016	10/10/00	0.003
9017	10/11/00	0.004
9018	10/11/00	0.002
9019	10/10/00	0.002
9020	10/10/00	0.000
9021	10/11/00	0.003
9022	10/11/00	0.009
9023	10/10/00	0.001
9024	10/10/00	0.008
9025	10/11/00	0.003
9026	10/11/00	0.000
9027	10/10/00	0.001
9028	10/11/00	0.004
9029	10/11/00	0.003
9030	10/11/00	0.006
9031	10/10/00	0.000
9032	10/11/00	0.000
9033	10/11/00	0.000
9034	10/11/00	0.000
9035	10/11/00	0.006
9036	10/12/00	0.002
9037	10/11/00	0.008
9038	10/12/00	0.004
9039	10/11/00	0.000
9040	10/12/00	0.021
9041	10/11/00	0.004
9042	10/12/00	0.000
9043	10/11/00	0.002
9044	10/12/00	0.000
9045	10/11/00	0.000
9046	10/11/00	0.007
9047	10/11/00	0.000
9048	10/12/00	0.000
9049	10/12/00	0.002
9050	10/12/00	0.000
9051	10/12/00	0.001

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Table 2
Summary of Hydrogen Sulfide Concentrations
Soil Gas Samples
Phase 2 Project Area
Playa Vista

Sample ID	Date Sampled	H ₂ S Concentration ppm
9052	10/12/00	0.000
9053	10/12/00	0.000
9054	10/12/00	0.000
9055	10/12/00	0.012

Notes:

PPMV - parts per million per volume

Results less than 0.003 ppm are below the range of the instrument and
should be considered estimates

"No sample - water" - as gas sample was collected at water table from
these samples. Sufficient gas could be collected for methane and
BTEX analysis but not for hydrogen sulfide.

Attachment A
Soil Gas Sampling Methodology

**FIELD AND LABORATORY PROCEDURES
FOR
SOIL VAPOR SAMPLING**

**Playa Vista
Los Angeles, California**

**Prepared by:
Exploration Technologies, Inc.
3698 Westchase Drive
Houston, Texas**

January 5, 2000

TABLE OF CONTENTS

1.0 INTRODUCTION

2.0 FIELD PROCEDURES

- 2.1 Preparation of Soil Vapor Sampling Bottles**
- 2.2 Collection of Soil Vapor Samples**
- 2.3 Quality Control Samples**
- 2.4 Field Recording of Samples**
- 2.5 Field Labeling/Recording of Samples**
- 2.6 Shipment of Samples**
- 2.7 Chain of Custody Procedures/Documentation**
- 2.8 Water Source**
- 2.9 Disposition of Soil Vapor Collection Holes**

3.0 CHAIN OF CUSTODY AND DOCUMENTATION

- 3.1 Field Logbook**
- 3.2 Sample Documentation**
 - 3.2.1 Sample Labels and/or Tags**
 - 3.2.2 Chain of Custody Records**
- 3.3 Corrections to Documentation**
- 3.4 Investigation Derived Waters**

4.0 LABORATORY PROCEDURES FOR ANALYSIS OF SOIL VAPOR SAMPLES

- 4.1 Summary of Methodology**
- 4.2 Suite of Analysis and Reporting/Detection Limits**
- 4.3 Interferences**
- 4.4 Data Collection and Archival**
- 4.5 Calibration and Results**
- 4.6 Quality Control**
- 4.7 Sample Analysis and Holding Times**

1.0 INTRODUCTION

The field procedures and protocols implemented for the Exploration Technologies, Inc. (ETI) proposed soil vapor sampling methodology is described in this plan. This Field Sampling Plan (FSP) describes the methodologies to be used during collection and analysis of soil vapor samples and the requirements for documentation and reporting.

In preparing this soil gas work plan, the following documents were consulted and implemented in developing the proposed field and analytical procedures:

- ASTM D5314-92 *Standard for Soil Gas Monitoring in the Vadose Zone*
- Los Angeles RWQCB *Interim Guidance for Active Soil Gas Investigation*

2.0 FIELD PROCEDURES

The field procedures to be used during collection of soil vapor samples are as follows:

2.1 Preparation of Soil Vapor Sampling Bottles

All soil vapor samples are collected in 22, 50 or 125-cubic centimeter (cc) glass serum bottles, depending upon available soil gas volumes. All bottles are pre-washed and soaked by filling with a detergent solution for 24 hours. These sample bottles are rinsed by filling with water and soaking for an additional 24 hours. After rinsing, the bottles are heated to 150° C for 24 hours, purged with pre-purified nitrogen (defined as 99.998% pure nitrogen with maximum levels of oxygen, total hydrocarbons and water not to exceed 5 parts per million volume (ppmv), 1 ppmv and 3 ppmv, respectively), capped and sealed with a butyl rubber septum and a crimped aluminum cap with a removable center protector.

2.2 Collection of Soil Vapor Samples

Soil vapor samples are collected in accordance with the following procedures and methodology:

- 1) Before initiating field activities, a utility locator will survey and clear each proposed boring or sampling location for any subsurface utilities or interferences. If an underground utility is identified within the proposed sampling location, the boring will be repositioned or relocated nearby and resurveyed for underground utilities.
- 2) After each sampling location is cleared of utilities, the sample hole is made with a manually operated $\frac{1}{2}$ - inch outside diameter steel plunger bar to the specified sampling depth of 4, 7 or 12 feet below ground surface. This is generally located within the vadose zone above the capillary fringe, although water samples can also be collected through ETI's soil gas probe.

- 3) For each sampling location, two of the pre-prepared septum top glass 125-cc sample bottles are evacuated onsite with a hand pump to a vacuum of approximately 20 inches of mercury for use in collecting soil vapor and ambient air samples.
- 4) After each boring has been punched to the specified sampling depth, the ½-inch outside diameter plunger bar is removed from the hole.
- 5) Before inserting the stainless-steel sampling probe into the pre-drilled borehole, one of the evacuated sample bottles is attached to a three-way stop cock valve mounted on the top of the probe with a new 20-gauge needle attached to a 60 cc hypodermic syringe. The three-way valve is opened to allow a sample of ambient air to fill the evacuated bottle through the sampling probe and to collect a background air sample for quality control between sampling locations. An additional 60 cc of ambient air is injected into the blank sample bottle using the new syringe, after which the sample bottle is removed from the valve and the puncture hole is sealed with a silicone rubber adhesive sealant.
- 6) After the blank sample is collected, the sampling probe is inserted into the sample hole and purged by withdrawing at least 15 cc of ambient air using the syringe mounted on the three-way valve attached to the top of the probe. The stainless steel sampling probe has an outside diameter of ½-inch and an inside diameter of 1/8 inch and a perforated tip for collecting the soil vapor sample at the bottom of the pre-drilled hole. This volume of purge is adequate to remove ambient air from the probe, while providing minimal disturbance to the soil gas near the probe tip. A 4-foot-long sampling probe with a 1/8-inch inside diameter has an internal volume of 9.65 cc.
- 7) Following this purging process, the second evacuated bottle is placed on the probe needle and the valve is opened to allow soil vapor to enter the evacuated bottle. The same 60-cc syringe used to collect the ambient air sample is then used to extract an additional 60 cc of soil vapor through the probe. The additional soil vapor is injected through the three-way valve into the bottle to overpressure the sampling bottle. The sample bottle is then removed and sealed with a silicone rubber adhesive cement (similar to the above procedure for collecting blank samples). The syringe is discarded following collection of each sample. The positive pressure on the bottle will prevent the influx of ambient air into the bottle and diluting the sample vapors during transportation from the field to the laboratory.
- 8) All sampling equipment is decontaminated between sample collection. The ½-inch-diameter sampling probe is washed both outside and inside by injecting a detergent solution through the probe, followed by a distilled water rinse before for collecting a soil vapor sample from each location. After rinsing, the inside of the probe is flushed with compressed air at approximately 25 pounds per square inch (psi) pressure using bottled breathing air.

The ETI sampling protocol is designed to collect only a small volume of equilibrium soil vapor sample from the subsurface sediments at the selected sampling depth under various conditions. If impermeable and/or water saturated soils are encountered at the selected

sampling depth, the field personnel will observe a significant vacuum in the syringe mounted on the three-way valve such that the syringe plunger cannot be withdrawn. It will be necessary to relieve the high vacuum before a soil gas sample can be collected. In cases where high vacuum is encountered, one of the following options can be implemented depending on actual conditions in the field:

1. The probe can be pulled up a few inches to clear the free water and/or wet clays that are sealing the bottom of the probe tip.
2. A new hole can be redrilled one to two feet from the initial sampling location. In most cases, this impermeable subsurface condition is not uniformly present across the site.

Under extreme impermeable conditions, the volume of the sample to be collected can be reduced from 125 cc to 50 cc or even 22 cc.

All sampling equipment is decontaminated between sampling locations. The manually operated sampling probes and any other field equipment is decontaminated between sampling locations using a high-pressure steam cleaner. Waste or rinse water generated during steam cleaning and decontamination is contained for proper disposal offsite. The soil vapor probe is also steam-cleaned, washed with soap, rinsed and blown dry with compressed air, using bottled breathing air as described above.

2.3 Quality Control Samples

Quality control samples will include ambient air samples collected through the probe at each location and one trip blank for each day of field activity. All trip blanks and 20 percent of ambient air samples collected will be analyzed using the same analytical procedures for the suite of analytes proposed for the soil vapor samples.

2.4 Field Recording of Samples

All soil vapor collection bottles will be labeled at each sample site with an appropriate map or grid reference number. A base map will be posted daily with all completed sites, and a list of samples collected will be retained by the sampler as part of the field notes. A copy of the field form to be used during soil vapor sampling is attached.

2.5 Field Labeling/Recording of Samples

A bound record book will be used by field personnel to document and record field observations and data collected during soil vapor sample collection. The record will include the times, locations, and the person collecting the samples. Each soil vapor sample container will be labeled in the field with the following information: site number, sample collection depth, date and time of sample collection, person collecting the sample. Records of field observations/ measurements will be maintained for record keeping.

2.6 Shipment of Samples

Samples will be shipped/delivered to ETI's, or to any other designated analytical laboratory for analyses of constituents of concern following the recommended procedures of the U.S. Environmental Protection Agency (EPA) and American Society for Testing and Materials (ASTM). Samples are shipped/delivered to the designated analytical laboratory within 24 hours of collection and within the specified holding times for each analysis following appropriate chain of custody procedures as described below.

2.7 Chain of Custody Procedures/Documentation

A chain of custody form will accompany all samples collected and submitted to ETI's, or to any other designated laboratory for analysis, and are maintained as part of record keeping and documentation of the soil vapor sampling activities. All samples are maintained under chain of custody control during transportation and until transfer and receipt by the laboratory. Immediately upon receipt by the laboratory, the samples are logged in with the appropriate sample designation, matrix, time and date of sampling, analyses required, client, and the sample designation. A copy of the chain of custody form is attached.

2.8 Water Source

An onsite potable water source will be identified by site personnel for use during field activities. Deionized water used for decontamination is normally purchased from a retail store.

2.9 Disposition of Soil Vapor Collection Holes

After the soil vapor samples are collected, each soil gas sample hole is backfilled with bentonite and/or neat cement as required by the local culture and finished to grade to match existing surface materials. All wastes generated during equipment cleaning are managed in accordance with the appropriate environmental procedures.

3.0 CHAIN OF CUSTODY AND DOCUMENTATION

The following section describes the project documentation requirements and procedures to be followed during field activities and sampling.

3.1 Field Logbook

A bound logbook dedicated to the project that has consecutively numbered pages is maintained. All fieldwork performed is recorded in this logbook. At a minimum, the following information is included in the logbook:

- Date and time of arrival and departure
- Weather conditions
- Personnel on site
- Level of personal protection
- Deviations from work plan standards

- Purpose of site visit
- Timed entries of the site activities performed
- All sample identification numbers and description of sample (including related QC samples)
- Field instruments used and calibration information
- Description of the number of shipping coolers and shipping method
- Name of receiving laboratory or laboratories
- Signature of the person maintaining the logbook

In cases where separate field sheets or forms are used to record data, the specific sheets are referenced by title in the logbook. All entries in the logbook will be made with waterproof markers. The logbook is maintained for record keeping for the duration of the project.

Other information, which is recorded, includes:

- Field screening instrument readings, if any
- Brand name and amount of each material used
- Any problems encountered and their resolutions
- Date and time of start and completion of soil gas samples, and notation as to depths
- Boundaries between individual lithologies

3.2 Sample Documentation

The following sections describe the sample documentation procedures that will be used during soil vapor sampling. Complete sample documentation is required from the time of sample collection to the preparation of analytical reports to ensure the integrity of sample data generated.

3.2.1 Sample Labels and/or Tags

Each sample collected will have a label affixed immediately following sample collection. If more than one container is collected for each location, then each container from that sample location will have identical information on the sample labels plus information regarding the time that each sample is collected. Each sample label will contain the following information:

- Project code, site name, or project number
- Sample identification number
- Sampler's name
- Preservative information
- Requested analysis
- Date and time of collection
- Type of sample, either soil gas or water

3.2.2 Chain of Custody Records

Chain of custody (COC) documents is used to maintain a record of sample collection, transfer of samples between personnel, sample shipping, and receipt by the laboratory. Sample information is entered on the COC documents at the time of sample collection. If there is any transfer of samples prior to shipment, the COC will reflect the change of possession. Samples are considered to be under custody if one or more of the following criteria are met:

- The sample is in the sampler's possession
- The sample is in the sampler's view after being in possession
- The sample was in the sampler's possession and was then locked up to prevent tampering
- The sample is in a designated secure area

All samples, including quality assurance/quality control samples, will be entered on a COC form. The COC form will include name, address, phone number, and project contact; project code, site name, and project number; full sample identification numbers; sampler's name; sample matrix; sample type; number of sample containers for each identification number; requested analyses; and any other pertinent information required by the laboratory. The COC form will be signed, dated, and timed by the relinquishing and receiving party each time sample possession is transferred. Transfer of sample custody will be kept to a minimum to simplify the COC record.

3.3 Corrections to Documentation

Any corrections made to field documentation, either in the field or during review, will be made by a single strike-through, the correct information will be recorded adjacent to the corrected information, and the person making the correction will initial and date next to the correction. The person who made the initial entry will make the corrections.

3.4 Management of Investigation-Derived Wastes

Waste soil and water generated during field activities and soil vapor sampling will be stored on site. These investigation-derived wastes (IDW) will be stored in proper containers pending characterization and proper disposal to a permitted facility.

4.0 LABORATORY PROCEDURES FOR ANALYSIS OF SOIL VAPOR SAMPLES

4.1 Summary of Methodology

Analysis of the permanent gases and light hydrocarbons in a gaseous sample is accomplished using gas chromatographs following a modified procedure outlined in EPA Method 8000 in "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", SW-846 (Third Edition). If a sample loop is used to introduce the sample onto the columns, it is attached to a multi-port valve and is flushed with the carrier gas following rotation of

the valve. Direct injection by gas tight syringe is acceptable. The permanent gases are analyzed using a thermal conductivity detector (TCD). The light hydrocarbons are analyzed using a flame ionization detector (FID). C5+ compounds are analyzed using a flame ionization detector (FID). The data is transferred to a computer where it is converted to digital format, stored, and processed using a chromatography data system.

This method is recommended for use by (or under the supervision of) analysts experienced in sample preparation, the operation of gas chromatographs and in the interpretation of chromatograms.

4.2 Suite of Analysis and Reporting/Detection Limits

Concentrations of analytes in the gas sample will be reported in percent by volume (for permanent gases) and parts per million by volume (PPMV) in accordance with the following detection limits:

Light Hydrocarbons	Reporting limits, FID	Reporting limits, TCD
Methane *	0.04 PPMV	0.10%
Ethane	0.01	PPMV
Ethene	0.01	PPMV
Propane	0.01	PPMV
Propene	0.01	PPMV
I-Butane	0.01	PPMV
N-Butane	0.01	PPMV

Permanent Gas	Reporting limits, TCD
Hydrogen	0.5 PPMV
Carbon dioxide	0.03%
Oxygen	1%
Nitrogen	5%

* NOTE: Samples and standards that contain high levels of methane must be reported using both TCD and FID methods. The results must agree to within 15% RPD.

~~C5 Plus Analyses~~

The C5 plus analysis will be grouped and reported according to the relative boiling points of the following compounds:

~~C5-Benzene~~

~~The sum of all hydrocarbons with a boiling point greater than pentane and less than benzene are reported as ppmv benzene equivalents.~~

NA

NA

Benzene-Toluene

The sum of all hydrocarbons with a boiling point equal to or greater than benzene and less than toluene are reported as benzene equivalents.

Toluene-Xylene

The sum of all hydrocarbons with a boiling point equal to or greater than toluene and less than xylene are reported as benzene equivalents.

Xylene Plus

The sum of all hydrocarbons with a boiling point greater than p-xylene are reported as benzene equivalents.

The reporting limit of each group of components in the C5+ analysis is 1.0 PPMV.

4.3 Interferences

The most likely source of "interference" is ambient air. Due to the relatively high concentrations of oxygen and nitrogen in air, a very small amount of air as a contaminant will seriously skew the results. The analyst must take care to ensure that air is flushed from the gas tight syringe before sample preparation and that no air has entered the syringe or needle prior to injection of the sample into the gas chromatograph.

Contamination by carryover can occur whenever high-level and low-level samples are sequentially analyzed. An unrestricted flow of pure carrier gas from a 10 psig source should be allowed to flow through each sample loop for 30 seconds prior to each analyses.

Syringes should be cleaned with laboratory soap and water (Alconox or equivalent) between sample extraction and analysis to insure absence of carryover from previous samples.

As required, the analyst should demonstrate the absence of carryover contamination by analysis of the contents of the sample loop when purged with carrier gas. This demonstration should be performed when carryover contamination is suspected (after high samples). In the event that 'ghost peaks' (peaks similar to previous sample) appear when a pure carrier gas sample is analyzed, measures should be taken to eliminate the carryover contamination.

4.4 Data Collection and Archival

The output of the chromatograph is directed to a computer where the signal is converted to digital format, stored, and processed using a chromatography data system.

Tabulated data is to be made available in electronic format as specified by the client. Data will be preserved and archived for a period of time as specified by the client.

4.5 Calibration and Results

The standard calibration gas should be introduced in the same manner, as is the sample (sample loop or direct injection). Measured peak areas are converted to concentrations using certified commercial gas standards traceable to NIST standards (Matheson Gas Products and Scott Specialty Gases). Dilutes may be made to achieve multi point calibration curves.

Initial calibration is accomplished by analyzing multiple standards of appropriate calibration ranges. The results should agree to within 10% RPD. These results will be used to establish a multi-point calibration curve.

A Continuing Calibration Verification (CCV) standard will be run for every 20 samples (or more frequently if contractually required). If the instrument response for any CCV standard varies by more than 20%, the analyst will not analyze samples until the reason is determined and the problem is corrected.

4.6 Quality Control

The quality control procedures to be implemented for analysis of soil gas samples for the analytes listed in Section 2.0 shall be as follows:

1. If the requirements set forth above are not met, the analytical program will be terminated until the cause is determined and a solution is effected.
2. The analyst should demonstrate the absence of ambient air in the sample preparation system by filling a sample syringe with inert gas and injecting the inert gas onto the columns in the same manner as a sample. The results of this 'syringe blank' should show all analyte levels below the minimum detection limits.
3. Before and during sample analysis, instrument blanks (sample loop filled with flush inert gas) should be analyzed to assure the absence of interference as described in Section 3.0 above.
4. An experienced analyst should examine all chromatograms.
5. Calibration records are generated in electronic and hard copy formats and stored. All such records will be maintained in the laboratory during the course of the project and thereafter as determined by the client.

4.7 Sample Analysis and Holding Times

Each soil gas sample will be analyzed for C1-C4 and C5 plus compounds within ten working days of collection. Unless otherwise specified, all samples will be held for 30 days after the report has been submitted. Samples are then segregated, when appropriate, by type and disposed of in the proper manner. If the laboratory cannot dispose of sample remnants in an environmentally safe manner, they may be returned to the client for disposal.

Turnaround times are dependent on the tests that are required and the holding times for the various tests. In the case of holding times, they will always dictate the turnaround time of the sample. When rapid turnaround is required, it should be specified by the client and arranged in advance.

Attachment B
Laboratory Reports and Chain-of-Custody Forms

MICROSEEPS



University of Pittsburgh Applied Research Center
220 William Pitt Way, Pittsburgh, PA 15238
(412) 826-5245_{ph} (412) 826-3433_{fax}
<http://www.microseeps.com>

October 19, 2000

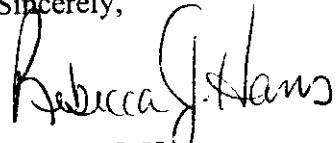
Ms. Michele Zych
Camp Dresser & McKee
18881 Von Karman
Suite 650
Irvine, CA 92612

Dear Ms. Zych:

Attached is the final data listing for the sample(s) we received on October 4, 2000, your project:
PLAYA VISTA .

Please give me a call if you have questions or I can be of further assistance. Thank you for using
Microseeps.

Sincerely,



Rebecca J. Hans

RJH/lsp

Attachment: CDM95-203748

— CAMP DRESSER & MCKEE —
— LOCATION: (PLAYA VISTA) - LOS ANGELES, CA —

Sample Names	Methane (%V)	Methane (PPMV)	Ethane (PPMV)	Ethylene (PPMV)	Propane (PPMV)	Propylene (PPMV)	Iso-Butane (PPMV)	N-Butane (PPMV)	Lab ID	Date Sampled	Date Received	Date Analyzed	Analyst
6004	*	2.11	0.08	0.08	0.06	0.05	<0.03	<0.03	T38 315	10/03/00	10/04/00	10/11/00	BC
6005	*	1.69	0.04	0.05	<0.03	<0.03	<0.03	<0.03	T38 316	10/03/00	10/04/00	10/11/00	BC
6006	*	1.56	0.05	0.04	<0.03	<0.03	<0.03	<0.03	T38 317	10/03/00	10/04/00	10/11/00	BC
6011	*	1.09	0.05	0.04	<0.03	<0.03	<0.03	<0.03	T38 318	10/03/00	10/04/00	10/11/00	BC
6012	*	1.27	0.10	0.08	0.04	0.06	<0.03	<0.03	T38 319	10/03/00	10/04/00	10/11/00	BC
6013	*	1.38	0.03	0.02	<0.03	<0.03	<0.03	<0.03	T38 320	10/03/00	10/04/00	10/11/00	BC
6018	*	1.21	0.04	0.02	<0.03	<0.03	<0.03	<0.03	T38 321	10/03/00	10/04/00	10/11/00	BC
6019	*	1.46	0.06	0.04	0.03	<0.03	<0.03	<0.03	T38 322	10/03/00	10/04/00	10/11/00	BC
6020	*	1.59	0.05	0.05	0.03	<0.03	<0.03	<0.03	T38 323	10/03/00	10/04/00	10/11/00	BC
6023	*	1.50	0.04	0.02	<0.03	<0.03	<0.03	<0.03	T38 324	10/03/00	10/04/00	10/11/00	BC
6024	*	0.54	0.01	<0.01	<0.03	<0.03	<0.03	<0.03	T38 349	10/03/00	10/04/00	10/12/00	BC
6025	*	1.30	0.09	0.09	0.03	0.08	<0.03	<0.03	T38 350	10/03/00	10/04/00	10/12/00	BC
6026	*	1.36	0.06	0.04	0.03	<0.03	<0.03	<0.03	T38 351	10/03/00	10/04/00	10/12/00	BC
3029	*	2.85	0.06	0.08	0.04	0.06	<0.03	<0.03	T38 352	10/03/00	10/04/00	10/12/00	BC
'130	*	1.27	0.09	0.09	0.03	0.06	<0.03	<0.03	T38 353	10/03/00	10/04/00	10/12/00	BC
60_1	*	1.62	0.04	0.04	<0.03	<0.03	<0.03	<0.03	T38 354	10/03/00	10/04/00	10/12/00	BC
60_2	*	1.23	0.04	0.04	<0.03	<0.03	<0.03	<0.03	T38 355	10/03/00	10/04/00	10/12/00	BC
60_13	*	1.48	0.08	0.06	0.03	0.05	<0.03	<0.03	T38 356	10/03/00	10/04/00	10/12/00	BC
'034	*	2.00	0.08	0.08	0.04	<0.03	<0.03	<0.03	T38 357	10/03/00	10/04/00	10/12/00	BC
'35	*	1.56	0.09	0.09	0.04	0.06	<0.03	<0.03	T38 358	10/03/00	10/04/00	10/12/00	BC
60_6	*	1.44	0.07	0.07	0.03	<0.03	<0.03	<0.03	T38 359	10/03/00	10/04/00	10/12/00	BC
6037	*	1.48	0.09	0.08	0.04	0.07	<0.03	<0.03	T38 360	10/03/00	10/04/00	10/12/00	BC
6033	*	1.38	0.02	0.04	<0.03	<0.03	<0.03	<0.03	T38 361	10/03/00	10/04/00	10/12/00	BC
6039	*	1.88	0.06	0.06	0.03	0.06	<0.03	<0.03	T38 362	10/03/00	10/04/00	10/12/00	BC
6140	*	1.59	0.08	0.08	0.04	0.05	<0.03	<0.03	T38 363	10/03/00	10/04/00	10/12/00	BC
'041	*	4.10	0.52	0.32	0.23	0.23	0.03	0.08	T38 364	10/03/00	10/04/00	10/12/00	BC
3042	*	3.94	0.37	0.25	0.14	0.17	0.03	0.07	T38 365	10/03/00	10/04/00	10/12/00	BC
DETECTION LIMITS	0.02	0.04	0.01	0.01	0.03	0.03	0.03	0.03					

* METHANE RESULT TAKEN FROM ALTERNATE DETECTOR

REVIEWED
[Signature]

ANALYST *[Signature]*

Microseeps

CDM95-203748

***** QUALITY CONTROL *****

---- CAMP DRESSER & MCKEE -----

---- LOCATION: (PLAYA VISTA) - LOS ANGELES, CA -----

CONTINUING CALIBRATION STANDARDS 10/11/00

COMPOUND	FILE ID	TRUE CONC.	MEASURED	% DIFF.
METHANE (FID)	T38 270	30.00	32.19	7.30
ETHANE	T38 270	10.00	10.02	0.20
ETHYLENE	T38 270	10.00	10.03	0.30
PROPANE	T38 270	10.00	10.05	0.50
PROPYLENE	T38 270	10.00	10.07	0.70
ISO-BUTANE	T38 270	10.00	10.35	3.50
N-BUTANE	T38 270	10.00	10.49	4.90

HE IN LOOP 10/11/00

COMPOUND	FILE ID (FID)	FILE ID	DET. LIMIT	MEASURED
METHANE	T38 272	T38 272	0.04 PPMV	ND
ETHANE	T38 272	T38 272	0.01 PPMV	ND
ETHYLENE	T38 272	T38 272	0.01 PPMV	ND
PROPANE	T38 272	T38 272	0.03 PPMV	ND
PROPYLENE	T38 272	T38 272	0.03 PPMV	ND
ISO-BUTANE	T38 272	T38 272	0.03 PPMV	ND
N-BUTANE	T38 272	T38 272	0.03 PPMV	ND

ANALYST INITIALS bc

REVIEW jk

Microseeps

CDM95-203748

***** QUALITY CONTROL *****

----- CAMP DRESSER & MCKEE -----
----- LOCATION: (PLAYA VISTA) - LOS ANGELES, CA -----

CONTINUING CALIBRATION STANDARDS 10/12/00

COMPOUND	FILE ID	TRUE CONC.	MEASURED	% DIFF.
METHANE (FID)	T38 327	30.00	32.14	7.13
ETHANE	T38 327	10.00	10.10	1.00
ETHYLENE	T38 327	10.00	10.08	0.80
PROPANE	T38 327	10.00	10.10	1.00
PROPYLENE	T38 327	10.00	10.03	0.30
ISO-BUTANE	T38 327	10.00	10.07	0.70
N-BUTANE	T38 327	10.00	9.81	1.90

HE IN LOOP 10/12/00

COMPOUND	FILE ID (FID)	FILE ID	DET. LIMIT	MEASURED
METHANE	T38 329	T38 329	0.04 PPMV	ND
ETHANE	T38 329	T38 329	0.01 PPMV	ND
ETHYLENE	T38 329	T38 329	0.01 PPMV	ND
PROPANE	T38 329	T38 329	0.03 PPMV	ND
PROPYLENE	T38 329	T38 329	0.03 PPMV	ND
ISO-BUTANE	T38 329	T38 329	0.03 PPMV	ND
N-BUTANE	T38 329	T38 329	0.03 PPMV	ND

ANALYST INITIALS HC

REVIEW ✓

----- CAMP DRESSER & MCKEE -----
 ----- Location: PLAYA VISTA -----
 ----- Concentrations in PPMV -----

Sample ID	Benzene	Toluene	Ethyl Benzene	M/P Xylene	Ortho Xylene	Lab ID	Date Sampled	Date Received	Date Analyzed	Analyst
6004	<0.07	<0.07	<0.07	<0.07	<0.07	W99A481	10/03/00	10/04/00	10/05/00	JLL
6005	<0.07	<0.07	<0.07	<0.07	<0.07	W99A482	10/03/00	10/04/00	10/05/00	JLL
6006	0.12	<0.07	<0.07	<0.07	<0.07	W99A483	10/03/00	10/04/00	10/05/00	JLL
6011	<0.07	<0.07	<0.07	<0.07	<0.07	W99A484	10/03/00	10/04/00	10/05/00	JLL
6012	<0.07	<0.07	<0.07	<0.07	<0.07	W99A485	10/03/00	10/04/00	10/05/00	JLL
6013	<0.07	<0.07	<0.07	<0.07	<0.07	W99A488	10/03/00	10/04/00	10/06/00	JLL
6018	<0.07	<0.07	<0.07	<0.07	<0.07	W99A489	10/03/00	10/04/00	10/06/00	JLL
6019	<0.07	<0.07	1.11	0.18	<0.07	W99A490	10/03/00	10/04/00	10/06/00	JLL
6020	<0.07	<0.07	<0.07	<0.07	<0.07	W99A491	10/03/00	10/04/00	10/06/00	JLL
6023	<0.07	<0.07	<0.07	<0.07	<0.07	W99A492	10/03/00	10/04/00	10/06/00	JLL
6024	<0.07	<0.07	<0.07	<0.07	<0.07	W99A493	10/03/00	10/04/00	10/06/00	JLL
6025	<0.07	<0.07	<0.07	<0.07	<0.07	W99A494	10/03/00	10/04/00	10/06/00	JLL
6026	<0.07	<0.07	<0.07	<0.07	<0.07	W99A495	10/03/00	10/04/00	10/06/00	JLL
6029	<0.07	0.18	<0.07	<0.07	<0.07	W99A496	10/03/00	10/04/00	10/06/00	JLL
6030	<0.07	<0.07	0.07	<0.07	<0.07	W99A497	10/03/00	10/04/00	10/06/00	JLL
6031	<0.07	<0.07	<0.07	<0.07	<0.07	W100A03	10/03/00	10/04/00	10/09/00	JLL
6032	<0.07	<0.07	<0.07	<0.07	0.15	W100A04	10/03/00	10/04/00	10/09/00	JLL
6033	<0.07	<0.07	<0.07	0.80	<0.07	W100A05	10/03/00	10/04/00	10/09/00	JLL
6034	<0.07	<0.07	<0.07	<0.07	<0.07	W100A06	10/03/00	10/04/00	10/09/00	JLL
6035	<0.07	<0.07	<0.07	<0.07	<0.07	W100A07	10/03/00	10/04/00	10/09/00	JLL
6036	<0.07	<0.07	<0.07	<0.07	<0.07	W100A08	10/03/00	10/04/00	10/09/00	JLL
6037	<0.07	<0.07	<0.07	<0.07	<0.07	W100A09	10/03/00	10/04/00	10/09/00	JLL
6038	<0.07	0.14	<0.07	<0.07	<0.07	W100A10	10/03/00	10/04/00	10/09/00	JLL
6039	<0.07	<0.07	<0.07	<0.07	<0.07	W100A11	10/03/00	10/04/00	10/09/00	JLL
6040	<0.07	<0.07	<0.07	<0.07	<0.07	W100A12	10/03/00	10/04/00	10/09/00	JLL
6041	<0.07	<0.07	<0.07	<0.07	<0.07	W100A13	10/03/00	10/04/00	10/09/00	JLL
6042	<0.07	<0.07	<0.07	<0.07	<0.07	W100A14	10/03/00	10/04/00	10/09/00	JLL
Detection Limits	0.07	0.07	0.07	0.07	0.07					

----- CAMP DRESSER & MCKEE -----
 ----- Location: PLAYA VISTA -----
 ----- Concentrations in PPMV -----

Continuing Calibration Standards 10/05/00

Compound	Lab ID	True Conc.	Measured	% Diff.
Benzene	W99A464	1.25	1.24	1.12
Toluene	W99A464	1.06	1.05	1.32
Ethyl Benzene	W99A464	0.92	0.91	1.52
M/P Xylene	W99A464	1.84	1.85	0.49
Ortho Xylene	W99A464	0.92	0.92	0.43

N2 in vial 10/05/00

Compound	Lab ID	True Conc.	Measured	% Diff.
Benzene	W99A464	1.25	1.24	1.12
Toluene	W99A464	1.06	1.05	1.32
Ethyl Benzene	W99A464	0.92	0.91	1.52
M/P Xylene	W99A464	1.84	1.85	0.49
Ortho Xylene	W99A464	0.92	0.92	0.43

Continuing Calibration Standards 10/06/00

Compound	Lab ID	True Conc.	Measured	% Diff.
Benzene	W99A486	1.25	1.30	4.00
Toluene	W99A486	1.06	1.12	5.66
Ethyl Benzene	W99A486	0.92	0.96	4.46
M/P Xylene	W99A486	1.84	1.94	5.43
Ortho Xylene	W99A486	0.92	0.95	3.26

N2 in vial 10/06/00

Compound	Lab ID	True Conc.	Measured	% Diff.
Benzene	W99A486	1.25	1.30	4.00
Toluene	W99A486	1.06	1.12	5.66
Ethyl Benzene	W99A486	0.92	0.96	4.46
M/P Xylene	W99A486	1.84	1.94	5.43
Ortho Xylene	W99A486	0.92	0.95	3.26

Continuing Calibration Standards 10/09/00

Compound	Lab ID	True Conc.	Measured	% Diff.
Benzene	W100A01	1.25	1.24	0.80
Toluene	W100A01	1.06	1.11	4.72
Ethyl Benzene	W100A01	0.92	0.94	2.17
M/P Xylene	W100A01	1.84	1.86	1.09
Ortho Xylene	W100A01	0.92	0.93	1.09

N2 in vial 10/09/00

Compound	Lab ID	True Conc.	Measured	% Diff.
Benzene	W100A01	1.25	1.24	0.80
Toluene	W100A01	1.06	1.11	4.72
Ethyl Benzene	W100A01	0.92	0.94	2.17
M/P Xylene	W100A01	1.84	1.86	1.09
Ortho Xylene	W100A01	0.92	0.93	1.09

Analyst JLLReviewed LL

MICROSEEPS, Inc.

220 William Pitt Way, Pittsburgh, PA 15238

Phone: (412) 826-5245 Fax: (412) 826-3433

PLAYA VISTA CO
1255 W JEFFERSON
WADSWORTH
LA CA 90066

Proj. Number:
 Proj. Name:

Fax #:

Sampler's signature:

CHAIN-OF-CUSTODY RECORD

Note: Enter proper letter in Requested Analyses columns below.

Analysis Options

<input checked="" type="checkbox"/> C1 -C4	<input checked="" type="checkbox"/> Chlorinated HC
<input checked="" type="checkbox"/> B Hydrogen & Helium	<input checked="" type="checkbox"/> BTEX
<input checked="" type="checkbox"/> C Permanent Gases (CH4, CO, CO2, N2, O2)	<input checked="" type="checkbox"/> BTEX & C5 - C10
<input checked="" type="checkbox"/> D Mercury (Soil) or (Air **)	<input checked="" type="checkbox"/> TPH (C5 - C10) or (C4 - C12)
<input checked="" type="checkbox"/> E TO-14 by GC/MS (Ambient) or (Source **)	<input checked="" type="checkbox"/> C11 - C18
<input checked="" type="checkbox"/> F 601 & 602 Compounds	<input checked="" type="checkbox"/> Other Specify below.

* An additional 22 ml vial of sample is required when requested in combination with another analysis.

** Available upon request.

Collection Date	Time	Number of Containers	"Sample #"	Sample Type	Identification	Requested Analyses (Other)		Remarks
						A	H	
Oct 3	8:55	1	SC0018	SC004	60004	A	H	
	9:05	1			60005	A	H	
	9:10	1			60005	A	H	
	9:20	1			60006	A	H	
	9:30	1			60011	A	H	
	9:45	1			60012	A	H	
	10:00	1			60013	A	H	
	11:00	1			60013	A	H	

Results to :

Invoice to :

Relinquished by : <u>John</u>	Company : <u>CDM</u>	Date : <u>10/3/00</u>	Time : <u>4:35 PM</u>	Received by : <u>John</u>	Company : <u>CDM</u>	Date : <u>10/3/00</u>	Time : <u>4:35 PM</u>
Relinquished by : <u></u>	Company : <u></u>	Date : <u></u>	Time : <u></u>	Received by : <u></u>	Company : <u></u>	Date : <u></u>	Time : <u></u>
Relinquished by : <u></u>	Company : <u></u>	Date : <u></u>	Time : <u></u>	Received by : <u></u>	Company : <u>#870251600150</u>	Date : <u>10/3/00</u>	Time : <u>5:00 PM</u>

WHITE COPY : Laboratory to return. YELLOW COPY : Laboratory PINK COPY : Submitter

MICROSEEPS, Inc.

220 William Pitt Way, Pittsburgh, PA 15238

Phone: (412) 826-5245 Fax: (412) 826-3433

CHAIN-OF-CUSTODY RECORD

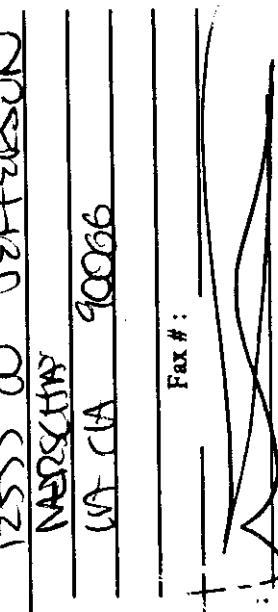
Note: Enter proper letters in Requested Analyses columns below.

Note: If analysis D,E, or K is selected, scratch (option) NOT wanted.

Analysis Options		Chlorinated HC	
<input checked="" type="checkbox"/> A	C1 -C4	<input checked="" type="checkbox"/> G	Chlorinated HC
<input checked="" type="checkbox"/> B	Hydrogen & Helium	<input checked="" type="checkbox"/> H	BTEX
<input checked="" type="checkbox"/> C	Permanent Gases (CH ₄ , CO, CO ₂ , N ₂ , O ₂)	<input checked="" type="checkbox"/> J	BTEX & C5 - C10
<input checked="" type="checkbox"/> D	Mercury (Soil) or (Air **)	<input checked="" type="checkbox"/> K	TPH (C5 - C10) or (C4 - C12)
<input checked="" type="checkbox"/> E	TO-14 by GC/MS (Ambient) or (Source **)	<input checked="" type="checkbox"/> L	C11 - C18
<input checked="" type="checkbox"/> F	601 & 602 Compounds	<input checked="" type="checkbox"/> M	Specify below.

* An additional 22 ml vial of sample is required when requested in combination with another analysis.

** Available upon request.

Sampler's Signature: 

Date:

Collection Date	Time	Number of Containers	"Sample" #	Requested Analyses (Other)		Remarks
				If Can. used	Type	
D-3	"	1	601,9		A	
	10:20	1	601,9		H	
	"	1	601,9		H	
10:48	"	1	602,0		A	
"	11:25	1	602,3		H	
11:35	"	1	602,4		A	
	11:45	1	602,4		H	
	"	1	602,5		A	
	"	1	602,5		H	

Invoice to :

Relinquished by:	Company:	Date:	Time:	Received by:	Company:	Date:	Time:
	ET	10/3/00	4:30P	John Vista	CDM	10/3/00	4:35 PM
Relinquished by:	Company:	Date:	Time:	Received by:	Company:	Date:	Time:
Relinquished by:	Company:	Date:	Time:	Received by:	Company:	Date:	Time:

WHITE COPY : Laboratory to return.

YELLOW COPY : Laboratory

PINK COPY : Submitter

MICROSEEPS, Inc.

220 William Pitt Way, Pittsburgh, PA 15238

Phone: (412) 826-5245 Fax: (412) 826-3433

CHAIN-OF-CUSTODY RECORD

Note: Enter proper letters in Requested Analyses columns below.

Analysis Options Note: If analysis D,E,or K is selected, scratch (option) NOT wanted.

<input type="checkbox"/> A	C1 -C4	<input checked="" type="checkbox"/> G Chlorinated HC
<input type="checkbox"/> B	Hydrogen & Helium	<input checked="" type="checkbox"/> H BTEX
<input checked="" type="checkbox"/> C	Permanent Gases (CH4, CO, CO2, N2, O2)	<input type="checkbox"/> J BTEX & C5 - C10
<input type="checkbox"/> D	Mercury (Soil) or (Air **)	<input type="checkbox"/> K TPH (C5 -C10) or (C4 -C12)
<input type="checkbox"/> E	TO-14 by GC/MS (Ambient) or (Source **)	<input type="checkbox"/> L C11 - C18
<input type="checkbox"/> F	601 & 602 Compounds	<input type="checkbox"/> M Other Specify below.

* An additional 22 ml vial of sample is required when requested in combination with another analysis.

** Available upon request.

Collection Date	Time	Number of Containers	Sample Identification		Requested Analyses (Other)	Remarks
			if Can. used	Type		
10-3	1:15	1		SOV 6M	(6026	
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MICROSEEPS, Inc.

220 William Pitt Way, Pittsburgh, PA 15238

Phone: (412) 826-5245 Fax: (412) 826-3433

Company Name: DURATA VISTA
 Address: 12555 W Jefferson
 Proj. Manager: MRSCHMITT
 Proj. Location: VA GA 90068
 Proj. Number:
 Phone #: _____

CHAIN-OF-CUSTODY RECORD

Note: Enter proper letters in Requested Analyses columns below.
 Note: If analysis D,E, or K is selected, scratch (option) NOT wanted.

Analysis Options

<input checked="" type="checkbox"/> A	<input type="checkbox"/> D1 - C4	<input type="checkbox"/> E Chlorinated HC
<input checked="" type="checkbox"/> B	<input type="checkbox"/> Hydrogen & Helium	<input type="checkbox"/> BTEX
<input checked="" type="checkbox"/> C	<input type="checkbox"/> Permanent Gases (CH4, CO, CO2, N2, O2)	<input type="checkbox"/> J BTEX & C5 - C10
<input checked="" type="checkbox"/> D	<input type="checkbox"/> Mercury (Soil) or (Air **)	<input type="checkbox"/> K TPH (C5 - C10) or (C4 - C12)
<input checked="" type="checkbox"/> E	<input type="checkbox"/> TO-14 by GC/MS (Ambient) or (Source **)	<input type="checkbox"/> L C11 - C18
<input checked="" type="checkbox"/> F	<input type="checkbox"/> 601 & 602 Compounds	<input type="checkbox"/> Other Specify below.

- * An additional 22 ml vial of sample is required when requested in combination with another analysis.
- ** Available upon request.

Sampler's signature:

Collection Date	Time	Number of Containers	"Sample" # if Can. used	Type	Sample Identification	Requested Analyses (Other)	Remarks
10-3		1	2:35	SOURCE	6033	A	
		1	"		6033	H	
		1	2:50	"	6035	A	
		1	"		6035	H	
		1	3:05	"	6036	A	
		1	"		6036	H	
		1	3:10	"	6037	A	
		1	"		6037	#	
		1	3:18	"	6038	A	
		1	"		6038	H	
		1	3:25	"	6040	A	
		1	"		6040	H	

Results to:

Relinquished by:	Company:	Date:	Time:	Received by:	Company:	Date:	Time:
<u>EITS</u>	EITS	10-3-00	4:30P	<u>JK</u>	CDM	10/3/00	4:35Pm
				<u>JK</u>	—	10-4-00	1:35P
				<u>JK</u>	#922029600150	10/3/00	5:00PM

WHITE COPY : Laboratory to return.

YELLOW COPY : Laboratory

PINK COPY : Submitter

MICROSEEPS, Inc.

220 William Pitt Way, Pittsburgh, PA 15238

卷之三

FIGURE 1

Company Name: DYNA VISTA
Address: 12555 W JEFFERSON
Proj. Manager: MESCHAN
Proj. Location: LA CA 90066
Proj. Number: _____
Phone #: _____ Fax #: _____

Sampler's signature:

CHAIN-OF-CUSTODY RECORD

卷之三

Fix: (412) 826-3433

Note: Enter proper letters in Requested Analyses columns below:

Anthrax Outbreaks in DRC are NOT associated with animal reservoirs.

C	A	C1 - C4	G	Chlorinated HC
I	B	Hydrogen & Helium	H	BTEX
V	C	Permanent Gases (CH4, CO, CO2, N2, O2)	J	BTEX & C5 - C10
D	D	Mercury (Soil) or (Air **)	K	TPH (C5 - C10) or (C4 - C12)
E	E	TO-14 by GC/MS (Ambient) or (Source **)	L	C11 - C18
F	F	601 & 602 Compounds	M	Specify below.

An additional 22 ml vial of sample is required when requested in combination with another analysis.

◆ A small white wooden bench

WHITE COPY : 1948

PINK COPY : Submitter

HELOW COPY : HOLLOWAY



University of Pittsburgh Applied Research Center
220 William Pitt Way, Pittsburgh, PA 15238
(412) 826-5245_{ph} (412) 826-3433_{fax}
<http://www.microseeps.com>

October 19, 2000

Ms. Michele Zych
Camp Dresser & McKee
18881 Von Karman
Suite 650
Irvine, CA 92612

Dear Ms. Zych:

Attached is the final data listing for the sample(s) we received on October 5, 2000, your project:
PLAYA VISTA .

Please give me a call if you have questions or I can be of further assistance. Thank you for using
Microseeps.

Sincerely,

A handwritten signature in black ink, appearing to read "Rebecca J. Hans".

Rebecca J. Hans

RJH/lsp

Attachment: CDM96-203762

— CAMP DRESSER & MCKEE —
— LOCATION: (PLAYA VISTA) - LOS ANGELES, CA —

Sample Names	Methane (%)	Methane (PPMV)	Ethane (PPMV)	Ethylene (PPMV)	Propane (PPMV)	Propylene (PPMV)	Iso-Butane (PPMV)	N-Butane (PPMV)	Lab ID	Date Sampled	Date Received	Date Analyzed	Analyst
6065	*	0.97	0.01	<0.03	<0.03	<0.03	<0.03	<0.03	T38 368	10/04/00	10/05/00	10/12/00	BC
6049	*	1.34	0.04	0.03	<0.03	<0.03	<0.03	<0.03	T38 367	10/04/00	10/05/00	10/12/00	BC
6051	*	1.46	0.08	0.08	0.04	0.06	<0.03	<0.03	T38 368	10/04/00	10/05/00	10/12/00	BC
6054	*	1.28	0.02	0.03	<0.03	<0.03	<0.03	<0.03	T38 369	10/04/00	10/05/00	10/12/00	BC
6066	*	1.24	0.06	0.05	<0.03	<0.03	<0.03	<0.03	T38 370	10/04/00	10/05/00	10/12/00	BC
6043	*	0.78	<0.01	<0.01	<0.03	<0.03	<0.03	<0.03	T38 371	10/04/00	10/05/00	10/12/00	BC
6063	*	2.38	0.13	0.19	0.06	0.18	<0.03	<0.03	T38 372	10/04/00	10/05/00	10/12/00	BC
6044	*	1.75	0.06	0.06	<0.03	<0.03	<0.03	<0.03	T38 373	10/04/00	10/05/00	10/12/00	BC
6047	*	1.96	0.09	0.07	0.04	0.06	<0.03	<0.03	T38 374	10/04/00	10/05/00	10/12/00	BC
6057	*	1.08	0.05	0.05	<0.03	<0.03	<0.03	<0.03	T38 375	10/04/00	10/05/00	10/12/00	BC
6076	*	1.95	0.04	<0.01	<0.03	<0.03	<0.03	<0.03	T38 376	10/04/00	10/05/00	10/12/00	BC
6062	*	0.68	0.04	0.02	<0.03	<0.03	<0.03	<0.03	T38 377	10/04/00	10/05/00	10/12/00	BC
6046	*	1.56	0.06	0.06	<0.03	<0.03	<0.03	<0.03	T38 388	10/04/00	10/05/00	10/12/00	BC
6050	*	1.49	0.02	0.02	<0.03	<0.03	<0.03	<0.03	T38 389	10/04/00	10/05/00	10/12/00	BC
6070	*	0.91	0.04	0.04	<0.03	<0.03	<0.03	<0.03	T38 390	10/04/00	10/05/00	10/12/00	BC
6056	*	2.10	0.05	0.06	0.06	0.05	<0.03	<0.03	T38 391	10/04/00	10/05/00	10/12/00	BC
6055	*	2.11	0.08	0.08	0.08	0.08	<0.03	<0.03	T38 392	10/04/00	10/05/00	10/12/00	BC
6053	*	1.71	0.06	0.06	0.03	0.03	<0.03	<0.03	T38 393	10/04/00	10/05/00	10/12/00	BC
6060	*	2.07	0.05	0.04	<0.03	<0.03	<0.03	<0.03	T38 394	10/04/00	10/05/00	10/12/00	BC
6067	*	2.06	0.08	0.04	<0.03	<0.03	<0.03	<0.03	T38 395	10/04/00	10/05/00	10/12/00	BC
6052	*	1.30	0.06	0.05	<0.03	<0.03	<0.03	<0.03	T38 396	10/04/00	10/05/00	10/12/00	BC
6073	*	1.71	0.07	<0.01	<0.03	<0.03	<0.03	<0.03	T38 397	10/04/00	10/05/00	10/12/00	BC
6064	*	1.20	0.05	0.05	<0.03	<0.03	<0.03	<0.03	T38 398	10/04/00	10/05/00	10/12/00	BC
6059	*	1.42	0.09	0.07	<0.03	<0.03	<0.03	<0.03	T38 399	10/04/00	10/05/00	10/12/00	BC
6069	*	2.51	0.27	0.27	0.10	0.19	<0.03	<0.03	T38 400	10/04/00	10/05/00	10/12/00	BC
6058	*	1.07	0.05	0.06	<0.03	<0.03	<0.03	<0.03	T38 401	10/04/00	10/05/00	10/12/00	BC
6045	*	1.24	0.07	0.06	<0.03	<0.03	<0.03	<0.03	T38 402	10/04/00	10/05/00	10/12/00	BC
6068	*	1.10	0.07	0.02	<0.03	<0.03	<0.03	<0.03	T38 403	10/04/00	10/05/00	10/12/00	BC
6072	*	1.06	0.03	0.03	<0.03	<0.03	<0.03	<0.03	T38 404	10/04/00	10/05/00	10/12/00	BC
6071	*	1.22	0.06	0.03	<0.03	<0.03	<0.03	<0.03	T38 405	10/04/00	10/05/00	10/12/00	BC
6048	*	1.96	0.06	0.06	<0.03	<0.03	<0.03	<0.03	T38 406	10/04/00	10/05/00	10/12/00	BC
6077	*	1.74	0.12	0.03	0.06	<0.03	<0.03	<0.03	T38 407	10/04/00	10/05/00	10/12/00	BC
6075	*	1.67	0.03	0.03	0.03	0.05	<0.03	<0.03	T38 408	10/04/00	10/05/00	10/12/00	MM
6074	*	1.47	0.08	0.03	0.03	0.05	<0.03	<0.03	T38 409	10/04/00	10/05/00	10/12/00	MM
6061	*	1.20	0.02	0.01	<0.03	<0.03	<0.03	<0.03	T38 410	10/04/00	10/05/00	10/12/00	MM
DETECTION LIMITS	0.02	0.04	0.01	0.01	0.03	0.03	0.03	0.03				0.03	

- METHANE RESULT TAKEN FROM ALTERNATE DETECTOR

REVIEW *[Signature]*
ANALYST *[Signature]*

Microseeps

CDM96-203762

**** QUALITY CONTROL ****

---- CAMP DRESSER & MCKEE ----
---- LOCATION: (PLAYA VISTA) - LOS ANGELES, CA ----

CONTINUING CALIBRATION STANDARDS 10/12/00

COMPOUND	FILE ID	TRUE CONC.	MEASURED	% DIFF.
METHANE (FID)	T38 327	30.00	32.14	7.13
ETHANE	T38 327	10.00	10.10	1.00
ETHYLENE	T38 327	10.00	10.08	0.80
PROPANE	T38 327	10.00	10.10	1.00
PROPYLENE	T38 327	10.00	10.03	0.30
ISO-BUTANE	T38 327	10.00	10.07	0.70
N-BUTANE	T38 327	10.00	9.81	1.90

HE IN LOOP 10/12/00

COMPOUND	FILE ID	DET. LIMIT	MEASURED
METHANE (FID)	T38 329	0.04 PPMV	ND
ETHANE	T38 329	0.01 PPMV	ND
ETHYLENE	T38 329	0.01 PPMV	ND
PROPANE	T38 329	0.03 PPMV	ND
PROPYLENE	T38 329	0.03 PPMV	ND
ISO-BUTANE	T38 329	0.03 PPMV	ND
N-BUTANE	T38 329	0.03 PPMV	ND

ANALYST INITIALS BR

REVIEW me.

CDM96-203762

***** QUALITY CONTROL *****

----- CAMP DRESSER & MCKEE -----

----- LOCATION: (PLAYA VISTA) - LOS ANGELES, CA -----

CONTINUING CALIBRATION STANDARDS 10/13/00

HE IN LOOP 10/13/00

COMPOUND	FILE ID	TRUE CONC.	MEASURED	% DIFF.
METHANE (FID)	T38 379	30.00	32.28	7.60
ETHANE	T38 379	10.00	10.06	0.80
ETHYLENE	T38 379	10.00	10.06	0.60
PROPANE	T38 379	10.00	10.10	1.00
PROPYLENE	T38 379	10.00	10.17	1.70
ISO-BUTANE	T38 379	10.00	10.48	4.80
N-BUTANE	T38 379	10.00	10.95	9.50

COMPOUND	FILE ID	DET. LIMIT	MEASURED
METHANE (FID)	T38 384	0.04 PPMV	ND
ETHANE	T38 384	0.01 PPMV	ND
ETHYLENE	T38 384	0.01 PPMV	ND
PROPANE	T38 384	0.03 PPMV	ND
PROPYLENE	T38 384	0.03 PPMV	ND
ISO-BUTANE	T38 384	0.03 PPMV	ND
N-BUTANE	T38 384	0.03 PPMV	ND

ANALYST INITIALS BCREVIEW mh.

----- CAMP DRESSER & MCKEE -----
 ----- Location: PLAYA VISTA -----
 ----- Concentrations in PPMV -----

Sample ID	Benzene	Toluene	Ethyl Benzene	M/P Xylene	Ortho Xylene	Lab ID	Date Sampled	Date Received	Date Analyzed	Analyst
6065	< 0.07	< 0.07	< 0.07	< 0.07	< 0.07	W100A15	10/04/00	10/05/00	10/09/00	JLL
6049	< 0.07	< 0.07	< 0.07	< 0.07	< 0.07	W100A16	10/04/00	10/05/00	10/09/00	JLL
6051	< 0.07	< 0.07	< 0.07	< 0.07	< 0.07	W100A17	10/04/00	10/05/00	10/09/00	JLL
6054	< 0.07	< 0.07	< 0.07	< 0.07	< 0.07	W100A18	10/04/00	10/05/00	10/09/00	JLL
6066	< 0.07	< 0.07	< 0.07	< 0.07	< 0.07	W100A19	10/04/00	10/05/00	10/09/00	JLL
6043	< 0.07	0.09	< 0.07	< 0.07	< 0.07	W100A20	10/04/00	10/05/00	10/09/00	JLL
6063	< 0.07	1.05	< 0.07	< 0.07	0.44	W100A21	10/04/00	10/05/00	10/09/00	JLL
6044	< 0.07	< 0.07	< 0.07	< 0.07	< 0.07	W100A22	10/04/00	10/05/00	10/09/00	JLL
6047	< 0.07	< 0.07	< 0.07	< 0.07	< 0.07	W100A25	10/04/00	10/05/00	10/10/00	JLL
6057	< 0.07	< 0.07	< 0.07	< 0.07	< 0.07	W100A26	10/04/00	10/05/00	10/10/00	JLL
6076	< 0.07	< 0.07	< 0.07	< 0.07	< 0.07	W100A27	10/04/00	10/05/00	10/10/00	JLL
6062	< 0.07	< 0.07	< 0.07	< 0.07	< 0.07	W100A28	10/04/00	10/05/00	10/10/00	JLL
6046	< 0.07	< 0.07	< 0.07	< 0.07	< 0.07	W100A29	10/04/00	10/05/00	10/10/00	JLL
6050	< 0.07	< 0.07	< 0.07	< 0.07	< 0.07	W100A30	10/04/00	10/05/00	10/10/00	JLL
6070	< 0.07	< 0.07	0.22	< 0.07	< 0.07	W100A31	10/04/00	10/05/00	10/10/00	JLL
6036	< 0.07	< 0.07	< 0.07	< 0.07	< 0.07	W100A32	10/04/00	10/05/00	10/10/00	JLL
6035	< 0.07	< 0.07	< 0.07	< 0.07	< 0.07	W100A33	10/04/00	10/05/00	10/10/00	JLL
6053	< 0.07	< 0.07	< 0.07	< 0.07	< 0.07	W100A34	10/04/00	10/05/00	10/10/00	JLL
6060	< 0.07	< 0.07	< 0.07	< 0.07	< 0.07	W100A35	10/04/00	10/05/00	10/10/00	JLL
6067	< 0.07	< 0.07	< 0.07	< 0.07	< 0.07	W100A36	10/04/00	10/05/00	10/10/00	JLL
6032	< 0.07	< 0.07	< 0.07	< 0.07	< 0.07	W100A37	10/04/00	10/05/00	10/10/00	JLL
6073	< 0.07	< 0.07	< 0.07	< 0.07	< 0.07	W100A38	10/04/00	10/05/00	10/10/00	JLL
6054	< 0.07	< 0.07	0.92	< 0.07	< 0.07	W100A39	10/04/00	10/05/00	10/10/00	JLL
6059	< 0.07	< 0.07	< 0.07	< 0.07	< 0.07	W100A40	10/04/00	10/05/00	10/10/00	JLL
6069	< 0.07	< 0.07	< 0.07	< 0.07	< 0.07	W100A41	10/04/00	10/05/00	10/10/00	JLL
6058	< 0.07	< 0.07	< 0.07	< 0.07	< 0.07	W100A42	10/04/00	10/05/00	10/10/00	JLL
6045	< 0.07	< 0.07	< 0.07	< 0.07	< 0.07	W100A43	10/04/00	10/05/00	10/10/00	JLL
6068	< 0.07	< 0.07	< 0.07	< 0.07	< 0.07	W100A44	10/04/00	10/05/00	10/10/00	JLL
6072	< 0.07	< 0.07	< 0.07	< 0.07	< 0.07	W100A47	10/04/00	10/05/00	10/11/00	JLL
6071	< 0.07	< 0.07	< 0.07	< 0.07	< 0.07	W100A48	10/04/00	10/05/00	10/11/00	JLL
6048	< 0.07	< 0.07	< 0.07	< 0.07	< 0.07	W100A49	10/04/00	10/05/00	10/11/00	JLL
6077	< 0.07	< 0.07	< 0.07	< 0.07	0.12	W100A50	10/04/00	10/05/00	10/11/00	JLL
6075	< 0.07	< 0.07	< 0.07	< 0.07	< 0.07	W100A51	10/04/00	10/05/00	10/11/00	JLL
6074	< 0.07	< 0.07	< 0.07	< 0.07	< 0.07	W100A52	10/04/00	10/05/00	10/11/00	JLL
6061	< 0.07	< 0.07	< 0.07	< 0.07	< 0.07	W100A53	10/04/00	10/05/00	10/11/00	JLL
Detection Limits	0.07	0.07	0.07	0.07	0.07					

Quality Control

----- CAMP DRESSER & MCKEE -----
 ----- Location: PLAYA VISTA -----
 ----- Concentrations in PPMV -----

Continuing Calibration Standards 10/09/00

Compound	Lab ID	True Conc.	Measured	% Diff.
Benzene	W100A01	1.25	1.24	0.80
Toluene	W100A01	1.06	1.11	4.72
Ethyl Benzene	W100A01	0.92	0.94	2.17
M/P Xylene	W100A01	1.84	1.86	1.09
Ortho Xylene	W100A01	0.92	0.93	1.09

N2 in vial 10/09/00

Compound	Lab ID	True Conc.	Measured	% Diff.
Benzene	W100A02	ND	ND	ND
Toluene	W100A02	ND	ND	ND
Ethyl Benzene	W100A02	ND	ND	ND
M/P Xylene	W100A02	0.07	ND	ND
Ortho Xylene	W100A02	0.07	ND	ND

Continuing Calibration Standards 10/10/00

Compound	Lab ID	True Conc.	Measured	% Diff.
Benzene	W100A23	1.25	1.28	2.40
Toluene	W100A23	1.06	1.03	2.83
Ethyl Benzene	W100A23	0.92	0.89	3.26
M/P Xylene	W100A23	1.84	1.81	1.63
Ortho Xylene	W100A23	0.92	0.91	1.09

N2 in vial 10/10/00

Compound	Lab ID	True Conc.	Measured	% Diff.
Benzene	W100A24	ND	ND	ND
Toluene	W100A24	ND	ND	ND
Ethyl Benzene	W100A24	ND	ND	ND
M/P Xylene	W100A24	0.07	ND	ND
Ortho Xylene	W100A24	0.07	ND	ND

Continuing Calibration Standards 10/11/00

Compound	Lab ID	True Conc.	Measured	% Diff.
Benzene	W100A45	1.25	1.31	4.80
Toluene	W100A45	1.06	1.11	4.72
Ethyl Benzene	W100A45	0.92	0.97	5.43
M/P Xylene	W100A45	1.84	1.94	5.43
Ortho Xylene	W100A45	0.92	0.97	5.43

N2 in vial 10/11/00

Compound	Lab ID	True Conc.	Measured	% Diff.
Benzene	W100A46	ND	ND	ND
Toluene	W100A46	0.07	ND	ND
Ethyl Benzene	W100A46	0.07	ND	ND
M/P Xylene	W100A46	0.07	ND	ND
Ortho Xylene	W100A46	0.07	ND	ND

Analyst JL/MReviewed JK

MICROSEEPS, Inc.

220 William Pitt Way, Pittsburgh, PA 15238

Phone: (412) 826-5245 Fax: (412) 826-3438

Company Name: PUSTA VISTA
 Address: 1255 W 32nd St
 Proj. Manager: MERGHEST
 Proj. Location: LA CA 600066
 Proj. Number:
 Phone #: _____ Fax #: _____

Sampler's signature: [Signature]

Note: Enter proper letters in Requested Analyses columns below.
 Note: If analysis D,E, or K is selected, scratch (option) NOT wanted.

Analysis Options	
<input checked="" type="checkbox"/> A	C1 - C4
<input type="checkbox"/> B	Hydrogen & Helium
<input type="checkbox"/> C	Permanent Gases (CH ₄ , CO, CO ₂ , N ₂ , O ₂)
<input type="checkbox"/> D	Mercury (Soil) or (Air **)
<input type="checkbox"/> E	TO-14 by GC/MS (Ambient) or (Source **)
<input type="checkbox"/> F	601 & 602 Compounds
<input type="checkbox"/> G	Chlorinated HC
<input type="checkbox"/> H	BTEX
<input type="checkbox"/> I	BTEX & C5 - C10
<input type="checkbox"/> K	TPH (C5 - C10) or (C4 - C12)
<input type="checkbox"/> L	C11 - C18
<input type="checkbox"/> M	Other Specify below.

- * An additional 22 ml vial of sample is required when requested in combination with another analysis.
- ** Available upon request.

Collection Date	Number of Containers	Summary * if Can. used	Sample Type	Sample Identification	Requested Analyses (Other)		Remarks
					A	H	
01/14/2000	215	1	Soil/SUS	6070	A	H	
	220	1		6074	A	H	
	222	1		6074	A	H	
	227	1		6075	A	H	
	225	1		6075	A	H	
	220	1		6075	A	H	
	250	1		6077	A	H	
	255	1		6077	A	H	
	320	1		6076	A	H	
	325	1		6077	A	H	
	330	1		6077	A	H	
✓ 335	1			6077	A	H	
Results to:					Invoice to:		
Relinquished by:	Company: <u>CIT</u>	Date: 01/14/00	Time: SP	Received by: <u>Trst</u>	Company: <u>CDM</u>	Date: 01/14/00	Time: 5:00 PM
Relinquished by:	Company: _____	Date: _____	Time: _____	Received by: <u>Trst</u>	Company: _____	Date: 01/15/00	Time: 13:00
Relinquished by:	Company: _____	Date: _____	Time: _____	Received by: <u>Flex</u>	Company: <u>8220 24600160</u>	Date: 01/14/00	Time: 5:20 PM

WHITE COPY : Laboratory to return.

YELLOW COPY : Laboratory

PINK COPY : Submitter

MICROSEEPS, Inc.

220 William Pitt Way, Pittsburgh, PA 15238

Phone: (412) 826-5245 Fax: (412) 826-3433

RITA VISTA

2555 W. STATION

WHEELING

PA 15066

Address:

Proj. Manager:

Proj. Location:

Proj. Number:

Phone #:

Fax #:

Sampler's signature:

Analysis Options Note: If analysis D,E, or K is selected, scratch (option) NOT wanted.

<input checked="" type="checkbox"/> A	C1 - C4	G	Chlorinated HC
<input checked="" type="checkbox"/> B	Hydrogen & Helium	H	BTEX
<input checked="" type="checkbox"/> C	Permanent Gases (CH4, CO, CO2, N2, O2)	J	BTEX & C5 - C10
<input checked="" type="checkbox"/> D	Mercury (Soil) or (Air **)	K	TPH (C5 - C10) or (C4 - C12)
<input checked="" type="checkbox"/> E	TO-14 by GC/MS (Ambient) or (Source **)	L	C11 - C18
<input checked="" type="checkbox"/> F	601 & 602 Compounds	Others	Specify below.

* An additional 22 ml vial of sample is required when requested in combination with another analysis.

** Available upon request.

Collection Date	Time	Number of Containers	Sample if Can. used	Type	Sample Identification	Requested Analyses (Other)		Remarks
						D	H	
10-9	11:51	1		GAS	6058			
	1:53	1			6058			
	1:57	1			6057			
	7:40	1			6057			
1203								
1210								
1205								
1210								
1211								
1216								
1200								
1205								

Results to :

Relinquished by:	Company: <u>ZIT</u>	Date: <u>OCT 4</u>	Time: <u>5 P</u>	Received by: <u>Rita</u>	Company: <u>CDM</u>	Date: <u>10/4/00</u>	Time: <u>5:15pm</u>
Relinquished by:	Company: <u> </u>	Date: <u> </u>	Time: <u> </u>	Received by: <u> </u>	Company: <u> </u>	Date: <u>10-5-00</u>	Time: <u>13:30</u>
Relinquished by:	Company: <u> </u>	Date: <u> </u>	Time: <u> </u>	Received by: <u> </u>	Company: <u> </u>	Date: <u>10/4/00</u>	Time: <u>5:15pm</u>

WHITE COPY : Laboratory to return.

YELLOW COPY : Laboratory

PINK COPY : Submitter

MICROSEEPS, Inc.

220 William Pitt Way, Pittsburgh, PA 15238

Phone: (412) 826-5245 Fax: (412) 826-3433

CHAIN-OF-CUSTODY RECORD

Note: Enter proper letters in Requested Analyses columns below.

Note: If analysis D, E, or K is selected, scratch (option) NOT wanted.

Analysis Options	
C	C1 - C4
B	Hydrogen & Helium
C	Permanent Gases (CH ₄ , CO, CO ₂ , N ₂ , O ₂)
D	Mercury (Soil) or (Air **)
E	TO-14 by GC/MS (Ambient) or (Source **)
F	601 & 602 Compounds
G	Chlorinated HC
H	BTEX
J	BTEX & CS - C10
K	TPH (CS - C10) or (C4 - C12)
L	C11 - C18
M	Specify below.

* An additional 22 ml vial of sample is required when requested in combination with another analysis.

** Available upon request.

Company Name: PLANO VISTA
 Address: 12555 W JEFFERSON
 Proj. Manager: MERSCHAT
 Proj. Location: LA CA
 Proj. Number:
 Phone #: Fax #:

[Handwritten signature]

Collection Date	Number of Samples	Container if Can. used	Sample Type	Identification	Requested Analyses (Other)	Remarks
10-4	10.00	-	SOL GASS	6046	A	
	1005	-		6046	H	
1007	-			6045	A	
1112	-			6045	H	
1110	-			6051	A	
1115	-			6051	H	
1118	-			6052	A	
1123	-			6052	H	
1125	-			6053	A	
1130	-			6053	H	
1135	-			6054	A	
				6054	H	

Results to:

Relinquished by:	Company:	Date:	Time:	Received by:	Company:	Date:	Time:
<i>[Signature]</i>	<i>[Signature]</i>	OCT 4	5P	<i>[Signature]</i>	<i>[Signature]</i>	10/4/00	5:15pm
<i>[Signature]</i>	<i>[Signature]</i>			<i>[Signature]</i>	<i>[Signature]</i>	10-5-00	1:30
<i>[Signature]</i>	<i>[Signature]</i>			<i>[Signature]</i>	<i>[Signature]</i>	10/6/00 0160	5:26pm

WHITE COPY : Laboratory to return.

YELLOW COPY : Laboratory

PINK COPY : Submitter

MICROSEEPS, Inc.

220 William Pitt Way, Pittsburgh, PA 15238

Phone: (412) 826-5245 Fax: (412) 826-3433

RUNA VISTA

1055 W. STATION

MURSCHART

20066

US CA

Fax #:

Sample's signature

Analysis Options Note: Enter proper letters in Requested Analyses columns below.
Note: If analysis D, E, or K is selected, scratch (option) NOT wanted.

* A	C1 -C4	G	Chlorinated HC
* B	Hydrogen & Helium	H	BTEX
* C	Permanent Gases (CH4, CO, CO2, N2, O2)	J	BTEX & C5 - C10
D	Mercury (Soil) or (Air **)	K	TPH (C5 - C10) or (C4 - C12)
E	TO-14 by GC/MS (Ambient) or (Source **)	L	C11 - C18
F	601 & 602 Compounds	M	Specify below.

- * An additional 22 ml vial of sample is required when requested in combination with another analysis.
- ** Available upon request.

Collection Date	Time	Number of Containers	"Sample" # if Can. used	Type	Identification	Sample		Requested Analyses (Other)	Remarks
						Received by:	Invoice to:		
10-4	910	1		SOL GAS	6043	A			
	915	1			6043	H			
	915	1			6044	A			
	920	1			6044	H			
	917	1			6050	A			
	921	1			6050	H			
	945	1			6047	A			
	930	1			6047	H			
	955	1			6048	A			
	W30	1			6048	H			
	635	1			6049	A			
	740	1			6049	H			

Results to :

Relinquished by : <u>John</u>	Company : <u>CDI</u>	Date : <u>10/5/01</u>	Time : <u>SP</u>	Received by : <u>John</u>	Company : <u>CDI</u>	Date : <u>10/4/01</u>	Time : <u>5:05pm</u>
Relinquished by : <u> </u>	Company : <u> </u>	Date : <u> </u>	Time : <u> </u>	Received by : <u> </u>	Company : <u> </u>	Date : <u> </u>	Time : <u> </u>
Relinquished by : <u> </u>	Company : <u> </u>	Date : <u> </u>	Time : <u> </u>	Received by : <u> </u>	Company : <u> </u>	Date : <u> </u>	Time : <u> </u>

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MICROSEEPS, Inc.

220 William Pitt Way, Pittsburgh, PA 15238

Phone: (412) 826-5245 Fax: (412) 826-3433

DNA VISTA

12555 W. SPRINGER

DETROIT

NEOSKIN

LA LA GOOKS

FAX #:

412

Company Name: _____
Address: _____
Proj. Manager: _____
Proj. Location: _____
Proj. Number: _____
Phone #: _____

Sampler's signature : ✓

Note: Enter proper letters in Requested Analysis columns below.
Note: If analysis D, E, or K is selected, scratch (option) NOT wanted.

Analysis Options

<input checked="" type="checkbox"/> A	C1 - C4	<input checked="" type="checkbox"/> C	Chlorinated HC
<input checked="" type="checkbox"/> B	Hydrogen & Helium	<input checked="" type="checkbox"/> H	BTEX
<input checked="" type="checkbox"/> C	Permanent Gases (CH4, CO, CO2, N2, O2)	<input checked="" type="checkbox"/> T	BTEX & C5 - C10
<input checked="" type="checkbox"/> D	Mercury (Soil) or (Air **)	<input checked="" type="checkbox"/> K	TPH (C5 - C10) or (C4 - C12)
<input checked="" type="checkbox"/> E	TO-14 by GC/MS (Ambient) or (Source **)	<input checked="" type="checkbox"/> L	C11 - C18
<input checked="" type="checkbox"/> F	601 & 602 Compounds	<input checked="" type="checkbox"/> M	Other Specify below.

* An additional 22 ml vial of sample is required when requested in combination with another analysis.

** Available upon request.

Collection Date	Time	Number of Containers	if Can. used	Sample Type	Sample Identification	Requested Analyses (Other)		Remarks
						A	H	
Oct 4	340	1		solid	6066	A	H	
	345	1			6077	A	H	
	340	1			6077	A	H	
	345	1			6077	A	H	
	400	1			6067	A	H	
	405	1			6067	A	H	
	405	1			6068	A	H	
	410	1			6068	A	H	
	410	1			6073	A	H	
	415	1			6073	A	H	

Invoice to :

Relinquished by : <u>✓</u>	Company : <u>ETI</u>	Date : <u>2/20/00</u>	Time : <u>5P</u>	Received by : <u>J. K.</u>	Company : <u>CDM</u>	Date : <u>10/4/00</u>	Time : <u>5:05PM</u>
Relinquished by : <u>✓</u>	Company : <u>✓</u>	Date : <u>10/5/00</u>	Time : <u>13:00</u>	Received by : <u>J. K.</u>	Company : <u>✓</u>	Date : <u>10/5/00</u>	Time : <u>13:00</u>
Relinquished by : <u>✓</u>	Company : <u>✓</u>	Date : <u>10/4/00</u>	Time : <u>01:00</u>	Received by : <u>J. K.</u>	Company : <u>✓</u>	Date : <u>10/4/00</u>	Time : <u>01:00</u>

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University of Pittsburgh Applied Research Center
220 William Pitt Way, Pittsburgh, PA 15238
(412) 826-5245 ph (412) 826-3433 fax
<http://www.microseeps.com>

October 19, 2000

Ms. Michele Zych
Camp Dresser & McKee
18881 Von Karman
Suite 650
Irvine, CA 92612

Dear Ms. Zych:

Attached is the final data listing for the sample(s) we received on October 6, 2000, your project:
PLAYA VISTA .

Please give me a call if you have questions or I can be of further assistance. Thank you for using
Microseeps.

Sincerely,

A handwritten signature in black ink, appearing to read "Rebecca J. Hans".

Rebecca J. Hans

RJH/lsp

Attachment: CDM97-203770

— CAMP DRESSER & MCKEE —
 — LOCATION: (PLAYA VISTA) - LOS ANGELES, CA —

Sample Names	Methane (%) ^a	Methane (PPMV)	Ethane (PPMV)	Ethylene (PPMV)	Propane (PPMV)	Propylene (PPMV)	Iso-Butane (PPMV)	N-Butane (PPMV)	Lab ID	Date Sampled	Date Received	Date Analyzed	Analyst
8005	*	0.99	0.06	0.04	<0.03	<0.03	<0.03	<0.03	T38 411	10/05/00	10/06/00	10/11/00	BC
8006	*	1.10	0.03	0.02	<0.03	<0.03	<0.03	<0.03	T38 412	10/05/00	10/06/00	10/11/00	BC
8030	*	1.38	0.05	0.05	<0.03	<0.03	<0.03	<0.03	T38 413	10/05/00	10/06/00	10/11/00	BC
8032	*	2.11	0.12	0.08	0.04	0.05	<0.03	<0.03	T38 414	10/05/00	10/06/00	10/11/00	BC
8040	*	1.74	0.10	0.06	0.05	0.04	<0.03	<0.03	T38 415	10/05/00	10/06/00	10/11/00	BC
8041	*	1.92	0.07	0.09	0.03	0.09	<0.03	<0.03	T38 416	10/05/00	10/06/00	10/11/00	BC
8001	*	0.64	0.01	0.02	<0.03	<0.03	<0.03	<0.03	T38 417	10/05/00	10/06/00	10/11/00	BC
8034	*	0.89	0.05	0.03	<0.03	<0.03	<0.03	<0.03	T38 418	10/05/00	10/06/00	10/11/00	BC
8003	*	1.56	0.06	0.03	<0.03	<0.03	<0.03	<0.03	T38 419	10/05/00	10/06/00	10/11/00	BC
8015	*	1.53	0.05	0.02	<0.03	<0.03	<0.03	<0.03	T38 420	10/05/00	10/06/00	10/11/00	BC
8043	*	1.30	0.05	0.04	<0.03	<0.03	<0.03	<0.03	T38 421	10/05/00	10/06/00	10/11/00	BC
8002	*	1.15	0.04	0.02	<0.03	<0.03	<0.03	<0.03	T38 422	10/05/00	10/06/00	10/11/00	BC
8036	*	3.14	0.15	0.10	0.06	0.05	<0.03	<0.03	T38 423	10/05/00	10/06/00	10/11/00	BC
8037	*	2.28	0.09	0.03	0.03	<0.03	<0.03	<0.03	T38 424	10/05/00	10/06/00	10/11/00	BC
8023	*	0.75	0.05	0.02	<0.03	<0.03	<0.03	<0.03	T38 425	10/05/00	10/06/00	10/11/00	BC
8004	*	0.48	<0.01	<0.01	<0.03	<0.03	<0.03	<0.03	T38 426	10/05/00	10/06/00	10/11/00	BC
8012	*	1.89	0.14	0.16	0.05	0.10	<0.03	<0.03	T38 427	10/05/00	10/06/00	10/11/00	BC
8026	*	1.07	0.04	0.04	<0.03	<0.03	<0.03	<0.03	T38 428	10/05/00	10/06/00	10/11/00	BC
8010	*	0.66	0.06	0.04	<0.03	<0.03	<0.03	<0.03	T38 429	10/05/00	10/06/00	10/11/00	BC
8033	*	1.58	0.10	0.05	0.03	<0.03	<0.03	<0.03	T38 430	10/05/00	10/06/00	10/11/00	BC
8042	*	0.71	0.03	0.02	<0.03	<0.03	<0.03	<0.03	T38 431	10/05/00	10/06/00	10/11/00	BC
8009	*	0.84	<0.01	<0.01	<0.03	<0.03	<0.03	<0.03	T38 437	10/05/00	10/06/00	10/11/00	BC
8016	*	0.90	0.02	0.01	<0.03	<0.03	<0.03	<0.03	T38 438	10/05/00	10/06/00	10/11/00	BC
8039	*	0.65	0.04	0.02	<0.03	<0.03	<0.03	<0.03	T38 439	10/05/00	10/06/00	10/11/00	BC
8038	*	0.92	0.02	<0.01	<0.03	<0.03	<0.03	<0.03	T38 440	10/05/00	10/06/00	10/11/00	BC
8035	*	0.82	0.03	0.01	<0.03	<0.03	<0.03	<0.03	T38 441	10/05/00	10/06/00	10/11/00	BC

DETECTION LIMITS 0.02 0.04 0.01 0.01 0.03 0.03 0.03 0.03 0.03 0.03 0.03 0.03 0.03

* METHANE RESULT TAKEN FROM ALTERNATE DETECTOR

REVIEW *ab*

ANALYST *BC*

Micro Leeps

CDM9 -203770

***** QUALITY CONTROL *****

--- CAMP DRESSER & MCKEE ---
--- LOCATION: (PLAYA VISTA) - LOS ANGELES, CA ---

CONTINUING CALIBRATION STANDARDS 10/13/00

COMPOUND	FILE ID	TRUE CONC.	MEASURED	% DIFF.
METHANE	T38 379	30.00	32.28	7.60
ETHANE	T38 379	10.00	10.08	0.80
ETHYLENE	T38 379	10.00	10.06	0.60
PROPANE	T38 379	10.00	10.10	1.00
PROPYLENE	T38 379	10.00	10.17	1.70
ISO-BUTANE	T38 379	10.00	10.48	4.80
N-BUTANE	T38 379	10.00	10.95	9.50

HE IN LOOP 10/13/00

COMPOUND	FILE ID (FID)	DET. LIMIT	MEASURED
METHANE	T38 384	0.04 PPMV	ND
ETHANE	T38 384	0.01 PPMV	ND
ETHYLENE	T38 384	0.01 PPMV	ND
PROPANE	T38 384	0.03 PPMV	ND
PROPYLENE	T38 384	0.03 PPMV	ND
ISO-BUTANE	T38 384	0.03 PPMV	ND
N-BUTANE	T38 384	0.03 PPMV	ND

ANALYST INITIALS AK

REVIEW AK

Microseeps

CDM: 7-203770

***** QUALITY CONTROL *****

----- CAMP DRESSER & MCKEE -----
----- LOCATION: (PLAYA VISTA) - LOS ANGELES, CA -----

CONTINUING CALIBRATION STANDARDS 10/16/00

CC. MOULDN'	FILE ID	TRUE CONC.	MEASURED	% DIFF.
METHANE (FID)	T38 434	30.00	32.40	8.00
EThane	T38 434	10.00	10.13	1.30
EThYLENE	T38 434	10.00	10.14	1.40
PROPANE	T38 434	10.00	10.16	1.60
PROPYLENE	T38 434	10.00	10.15	1.50
ISO-BUTANE	T38 434	10.00	10.32	3.20
N-BUTANE	T38 434	10.00	10.17	1.70

HE IN LOOP 10/16/00

COMPOUND	FILE ID	DET. LIMIT	MEASURED
METHANE (FID)	T38 436	0.04 PPMV	ND
ETHANE	T38 436	0.01 PPMV	ND
ETHYLENE	T38 436	0.01 PPMV	ND
PROPANE	T38 436	0.03 PPMV	ND
PROPYLENE	T38 436	0.03 PPMV	ND
ISO-BUTANE	T38 436	0.03 PPMV	ND
N-BUTANE	T38 436	0.03 PPMV	ND

ANALYST INITIALS BR

REVIEWED BR

----- CAMP DRESSER & MCKEE -----
 ----- Location: PLAYA VISTA -----
 ----- Concentrations in PPMV -----

Sar. ple ID	Benzene	Toluene	Ethyl Benzene	M/P Xylene	Ortho Xylene	Lab ID	Sampled	Date Received	Date Analyzed	Analyst
8005	<0.07	<0.07	<0.07	<0.07	<0.07	W100A54	10/05/00	10/06/00	10/11/00	JLL
8006	<0.07	<0.07	<0.07	<0.07	<0.07	W100A55	10/05/00	10/06/00	10/11/00	JLL
3030	<0.07	<0.07	<0.07	<0.07	<0.07	W100A56	10/05/00	10/06/00	10/11/00	JLL
8017	<0.07	<0.07	<0.07	<0.07	<0.07	W100A57	10/05/00	10/06/00	10/11/00	JLL
8040	<0.07	<0.07	<0.07	<0.07	<0.07	W100A58	10/05/00	10/06/00	10/11/00	JLL
8041	<0.07	<0.07	<0.07	<0.07	<0.07	W100A59	10/05/00	10/06/00	10/11/00	JLL
8001	<0.07	0.11	<0.07	<0.07	<0.07	W100A60	10/05/00	10/06/00	10/11/00	JLL
8034	<0.07	<0.07	<0.07	<0.07	<0.07	W100A61	10/05/00	10/06/00	10/11/00	JLL
8007	<0.07	0.10	<0.07	<0.07	<0.07	W100A62	10/05/00	10/06/00	10/11/00	JLL
8035	<0.07	<0.07	<0.07	<0.07	<0.07	W100A63	10/05/00	10/06/00	10/11/00	JLL
8036	<0.07	<0.07	<0.07	<0.07	<0.07	W100A64	10/05/00	10/06/00	10/11/00	JLL
8037	<0.07	<0.07	<0.07	<0.07	<0.07	W100A65	10/05/00	10/06/00	10/11/00	JLL
8023	<0.07	<0.07	<0.07	<0.07	<0.07	W100A66	10/05/00	10/06/00	10/11/00	JLL
8004	<0.07	0.11	<0.07	<0.07	<0.07	W100A69	10/05/00	10/06/00	10/12/00	JLL
8012	<0.07	<0.07	<0.07	<0.07	<0.07	W100A70	10/05/00	10/06/00	10/12/00	JLL
8026	<0.07	<0.07	<0.07	<0.07	<0.07	W100A71	10/05/00	10/06/00	10/12/00	JLL
8010	<0.07	<0.07	<0.07	<0.07	<0.07	W100A72	10/05/00	10/06/00	10/12/00	JLL
8033	<0.07	<0.07	<0.07	<0.07	<0.07	W100A73	10/05/00	10/06/00	10/12/00	JLL
8042	<0.07	0.41	<0.07	<0.07	<0.07	W100A74	10/05/00	10/06/00	10/12/00	JLL
8009	<0.07	<0.07	<0.07	<0.07	<0.07	W100A75	10/05/00	10/06/00	10/12/00	JLL
8016	<0.07	<0.07	<0.07	<0.07	<0.07	W100A76	10/05/00	10/06/00	10/12/00	JLL
8039	<0.07	<0.07	<0.07	<0.07	<0.07	W100A77	10/05/00	10/06/00	10/12/00	JLL
8038	<0.07	<0.07	<0.07	<0.07	<0.07	W100A78	10/05/00	10/06/00	10/12/00	JLL
8035	<0.07	<0.07	<0.07	<0.07	<0.07	W100A79	10/05/00	10/06/00	10/12/00	JLL
						W100A80	10/05/00	10/06/00	10/12/00	JLL
						W100A81	10/05/00	10/06/00	10/12/00	JLL
Detection Limits	0.07	0.07	0.07	0.07	0.07					

Quality Control

CDM97-203770

----- CAMP DRESSER & MCKEE -----
 ----- Location: PLAYA VISTA -----
 ----- Concentrations in PPMV -----

Continuing Calibration Standards 10/11/00

Compound	Lab ID	True Conc.	Measured	% Diff.	
Benzene	W100A45	1.25	1.31	4.80	
Toluene	W100A45	1.06	1.11	4.72	
Ethyl Benzene	W100A45	0.92	0.97	5.43	
M/P Xylene	W100A45	1.84	1.94	5.43	
Ortho Xylene	W100A45	0.92	0.97	5.43	

N2 in vial 10/11/00

Compound	Lab ID				
Benzene			W100A46	0.07	ND
Toluene			W100A46	0.07	ND
Ethyl Benzene			W100A46	0.07	ND
M/P Xylene			W100A46	0.07	ND
Ortho Xylene			W100A46	0.07	ND

Continuing Calibration Standards 10/12/00

Compound	Lab ID	True Conc.	Measured	% Diff.	
Benzene	W100A67	1.25	1.30	4.00	
Toluene	W100A67	1.06	1.11	4.72	
Ethyl Benzene	W100A67	0.92	0.96	4.35	
M/P Xylene	W100A67	1.84	1.96	6.52	
Ortho Xylene	W100A67	0.92	0.97	5.43	

N2 in vial 10/12/00

Compound	Lab ID				
Benzene			W100A68	0.07	ND
Toluene			W100A68	0.07	ND
Ethyl Benzene			W100A68	0.07	ND
M/P Xylene			W100A68	0.07	ND
Ortho Xylene			W100A68	0.07	ND

Analyst JLReviewed ml.

MICROSEEPS, Inc.

220 William Pitt Way, Pittsburgh, PA 15238

Phone: (412) 826-5245 Fax: (412) 826-3433

PLATA VISTA

TESTS FOR REASON
TESTS FOR REASON

TESTS FOR REASON
TESTS FOR REASON

Fax #:

Sampler's signature: 

Company Name: PLATA VISTA
Address: TESTS FOR REASON
Proj. Manager: TESTS FOR REASON
Proj. Location: TESTS FOR REASON
Proj. Number: TESTS FOR REASON
Phone #: TESTS FOR REASON

CHAIN-OF-CUSTODY RECORD

Note: Enter proper letter in Requested Analyses columns below.

Note: If analysis D,E, or K is selected, scratch (option) NOT wanted.

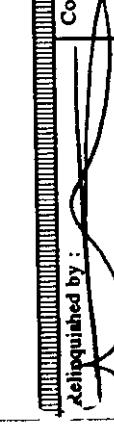
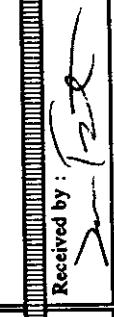
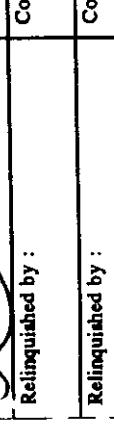
<input checked="" type="checkbox"/> A	C1 - C4	<input checked="" type="checkbox"/> C	Chlorinated HC
<input checked="" type="checkbox"/> B	Hydrogen & Helium	<input checked="" type="checkbox"/> CH	BTEX
<input checked="" type="checkbox"/> C	Permanent Gases (CH ₄ , CO, CO ₂ , N ₂ , O ₂)	<input checked="" type="checkbox"/> C5 - C10	BTEX & C5 - C10
<input checked="" type="checkbox"/> D	Mercury (Soil) or (Air **)	<input checked="" type="checkbox"/> K	TPH (C5 - C10) or (C4 - C12)
<input checked="" type="checkbox"/> E	TO-14 by GC/MS (Ambient) or (Source **)	<input checked="" type="checkbox"/> L	C11 - C18
<input checked="" type="checkbox"/> F	601 & 602 Compounds	<input checked="" type="checkbox"/> M	Specify below.

* An additional 22 ml vial of sample is required when requested in combination with another analysis.

** Available upon request.

Collection Date	Time	Number of Containers	"Sample #"	Sample Type	Identification	Requested Analyses (Other)		Remarks
						D	E	
10-5	115	-			8004	A		
	125	-			8004	A		
	115	-			8005	A		
	1120	-			8038	A		
	103	-			8038	A		
	208	-			8037	A		
	155	-			8039	H		
	210	-			8043	A		
	100	-			8043	A		
	105	-			8042	A		
	115	-			8042	A		
	720	-						

Invoice to : _____

Relinquished by : 	Company : <u>ETTS</u>	Date: <u>10/5/00</u>	Time: <u>4:30P</u>	Received by : 	Company : <u>CDM</u>	Date: <u>10/5/00</u>	Time: <u>4:35PM</u>
Relinquished by : 	Company : <u>CDM</u>	Date: <u>10-6-00</u>	Time: <u>11AM</u>	Received by : 	Company : <u>CDM</u>	Date: <u>10-6-00</u>	Time: <u>11AM</u>
Relinquished by : 	Company : <u>CDM</u>	Date: <u>10/5/00</u>	Time: <u>5:30PM</u>	Received by : 	Company : <u>CDM</u>	Date: <u>10/5/00</u>	Time: <u>5:30PM</u>

WHITE COPY : Laboratory to return.

YELLOW COPY : Laboratory

PINK COPY : Submitter

MICROSEEPS, Inc.

220 William Pitt Way, Pittsburgh, PA 15238

Phone: (412) 826-5245

Fax: (412) 826-3433

CHAIN-OF-CUSTODY RECORD

Note: Enter proper letters in Requested Analyses columns below.

Analysis Options

<input checked="" type="checkbox"/> A C1 -C4	<input checked="" type="checkbox"/> C Chlorinated HC
<input checked="" type="checkbox"/> B Hydrogen & Helium	<input checked="" type="checkbox"/> D BTEX
<input checked="" type="checkbox"/> C Permanent Gases (CH4, CO, CO2, N2, O2)	<input checked="" type="checkbox"/> J BTEX & C5 - C10
<input checked="" type="checkbox"/> D Mercury (Soil) or (Air **)	<input checked="" type="checkbox"/> K TPH (C5 - C10) or (C4 - C12)
<input checked="" type="checkbox"/> E TO-14 by GC/MS (Ambient) or (Source **)	<input checked="" type="checkbox"/> L C11 - C18
<input checked="" type="checkbox"/> F 601 & 602 Compounds	<input checked="" type="checkbox"/> M Other Specify below.

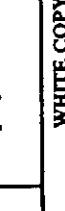
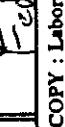
- An additional 22 ml vial of sample is required when requested in combination with another analysis.

- ** Available upon request.

Sampler's signature : 

Collection Date	Time	Number of Containers	"Sample #"	Sample if Can. used	Type	Identification	Requested Analyses		Remarks
							(Other)		
10/10	10:10	1	8032	8032	A				
10/15	10:15	1	8032	8032	A				
10/18	10:18	1	8033	8033	A				
10/22	10:22	1	8033	8033	H				
10/25	10:25	1	8034	8034	A				
10/30	10:30	1	8034	8034	H				
11/01	11:01	1	8031	8031	A				
11/05	11:05	1	8031	8031	H				
11/15	11:15	1	8032	8032	A				
11/15	11:15	1	8032	8032	H				
11/25	11:25	1	8033	8033	A				
11/25	11:25	1	8033	8033	H				
11/30	11:30	1	8033	8033	H				

Results to : 

Relinquished by : 	Company : 	Date : 10/5	Time : 4:30P	Received by : 	Company : CDM	Date : 10/5/00	Time : 4:35PM
Relinquished by : 	Company : 	Date : _____	Time : _____	Received by : _____	Company : _____	Date : 10/6/00	Time : 11:30A
Relinquished by : 	Company : 	Date : 10/5	Time : 5:30P	Received by : 	Company : 822029600219	Date : 10/5/00	Time : 5:30PM

WHITE COPY : Laboratory to return.
YELLOW COPY : Laboratory to return.

PINK COPY : Submitter

MICROSEEPS, Inc.

220 William Pitt Way, Pittsburgh, PA 15238

Phone: (412) 826-5245 Fax: (412) 826-3433

CHAIN-OF-CUSTODY RECORD

Note: Enter proper letters in Requested Analyses columns below.

Analysis Options

A	C1 - C4	G	Chlorinated HC
B	Hydrogen & Helium	H	BTEX
C	Permanent Gases (CH4, CO, CO2, N2, O2)	J	BTEX & C5 - C10
D	Mercury (Soil) or (Air **)	K	TPH (C5 - C10) or (C4 - C12)
E	TO-14 by GC/MS (Ambient) or (Source **)	L	C11 - C18
F	601 & 602 Compounds	M	Specify below.

* An additional 22 ml vial of sample is required when requested in combination with another analysis.

** Available upon request.

Company Name: DNA VISTA
 Address: 12555 WO JEFFERSON
 Proj. Manager: NEOSCHATT
 Proj. Location: LA CA 90066
 Proj. Number:
 Phone #: Fax #:
 Sampler's signature: [Signature]

Results to :

Collection Date	Number of Containers	"Sample" #		Sample Type	Identification	Requested Analyses (Other)		Remarks
		if Can. used	if No					
10-5	420	1		soil gcs	8005	A		
	925	1			8005	H		
	926	1			8010	A		
	930	1			8010	H		
	933	1			8012	A		
	935	1			8012	H		
	940	1			8006	A		
	945	1			8006	H		
	945	1			8035	A		
	950	1			8035	H		
	946	1			8036	A		
	947	1			8036	H		

Invoice to :

Relinquished by:	Company: <u>ETT</u>	Date: <u>10-5</u>	Time: <u>4:30P</u>	Received by: <u>Zen Fife</u>	Company: <u>CDM</u>	Date: <u>10/5/00</u>	Time: <u>4:35PM</u>
Relinquished by:	Company: _____	Date: _____	Time: _____	Received by: _____	Company: _____	Date: _____	Time: _____
Relinquished by:	Company: <u>#622629600219</u>	Date: <u>10/5/00</u>	Time: <u>5:30 PM</u>	Received by: <u>Zen Fife</u>	Company: <u>#622629600219</u>	Date: <u>10/5/00</u>	Time: <u>5:30 PM</u>
Relinquished by:	Company: _____	Date: _____	Time: _____	Received by: _____	Company: _____	Date: _____	Time: _____

WHITE COPY : Laboratory to return.

PINK COPY : Laboratory

YELLOW COPY : Submitter

MICROSEEPS, Inc.

220 William Pitt Way, Pittsburgh, PA 15238

Phone: (412) 826-5245 Fax: (412) 826-3433

Company Name: PLATA VISTA
 Address: 12555 W FEFERSON
 Proj. Manager: WES SCHMITT
 Proj. Location: 40066
 Proj. Number: LA CP
 Phone #: _____
 Fax #: _____

Sampler's signature : 

CHAIN-OF-CUSTODY RECORD

Note: Enter proper letters in Requested Analyses columns below.

Note: If analysis D,E,or K is selected, scratch (option) NOT wanted.

Analysis Options		Requested Analyses	
A	C1 -C4	G	Chlorinated HC
B	Hydrogen & Helium	H	BTEX
C	Permanent Gases (CH4, CO, CO2, N2, O2)	I	BTEX & C5 - C10
D	Mercury (Soil) or (Air **)	K	TPH (C5 - C10) or (C4 - C12)
E	TO-14 by GC/MS (Ambient) or (Source **)	L	C11 - C18
F	601 & 602 Compounds	M	Other Specify below.

- An additional 22 ml vial of sample is required when requested in combination with another analysis.

** Available upon request.

Collection Date	Number of Containers	Sample # if Can. used	Sample Type	Sample Identification	Requested Analyses (Other)	Remarks
10/5	220	1		8041	A	
12/5	225	1		8041	A	
12/10	230	1		8040	A	
12/15	235	1		8040	A	
12/5	255	1		8015	A	
12/10	300	1		8015	A	
12/15	300	1		8016	A	
12/5	305	1		8016	A	
12/13	253	1		8037	A	
12/8	258	1		8037	A	
12/15	345	1		8026	A	
				8026	A	

Results to : _____

Relinquished by : 	Company : <u>ETTS</u>	Date : <u>10-5</u>	Time : <u>4:30 P</u>	Received by : 	Company : <u>CDM</u>	Date : <u>10/5/00</u>	Time : <u>4:35 PM</u>
Relinquished by : 	Company : _____	Date : _____	Time : _____	Received by : 	Company : _____	Date : <u>10-6-00</u>	Time : <u>11:30 AM</u>
Relinquished by : 	Company : _____	Date : _____	Time : _____	Received by : 	Company : <u>822029600219</u>	Date : <u>10/5/00</u>	Time : <u>5:30 PM</u>

WHITE COPY : Laboratory to return.

YELLOW COPY : Laboratory to return.

PINK COPY : Submitter

Houston, Texas 77042
 (713) 785-0393
 FAX: (713) 785-1550

CHAIN OF CUSTODY RECORD
 AND ANALYSIS REQUEST FORM

Page of
 Lab. Batch #

3698 w bestusage
 Houston, Texas 77042
 (713) 785-0393
 FAX: (713) 785-1550

Client		Phone ()		Contractor COC #	
Address				No. carrier this shipment	Quote #: PA 77
Project Name				No. of Airbill No.	PO. No.: PA 77
Project Location		Project Manager NA 88THW		Turn-around	
Sample Signature				L B ONLY D #	
				A.S.P. 24 hrs 48 hrs Standard	
				Please Hold TDS TOTAL LEAD FLUORESCENCE CAPILLARY GC FINGERPRINT CO₂ EXPL C1-C4 C1-C4 & C5+ TPH EPA BTEX Total	
				Remarks 1 2 3 4 5 6 7 8 9 10	
				CONTAINER Y E N I R S	
				Preservative Unk Dies Ket Unknown	
				White Oil PIT No. Tank No. Sample Description	
				8023 8023 8020 8030 8030 8030 8030 8030 8030 8030	
				Field ID Date Time Depth Temp Pressure Container Size Type P.G.	
				10-5 340 345 345 350 350 350 350 350 350	
				Received by: PA 77 Signature: PA 77 Date: 10/5/00 TIME: 4:34 Received For Laboratory by: PA 77 Date: 10/5/00 TIME: 5:30pm TIME: 11:00	
				Remarks 203776 / CDR 97	
				Prepared by: PA 77 Signature: PA 77 Pink (Control), Yellow & White (Lab)	



University of Pittsburgh Applied Research Center
220 William Pitt Way, Pittsburgh, PA 15238
(412) 826-5245 ^{ph} (412) 826-3433 ^{fax}
<http://www.microseeps.com>

October 19, 2000

Ms. Michele Zych
Camp Dresser & McKee
18881 Von Karman
Suite 650
Irvine, CA 92612

Dear Ms. Zych:

Attached is the final data listing for the sample(s) we received on October 3, 2000, your project:
PLAYA VISTA .

Please give me a call if you have questions or I can be of further assistance. Thank you for using
Microseeps.

Sincerely,

A handwritten signature in black ink, appearing to read "Rebecca J. Hans". Below the signature, the name "Rebecca J. Hans" is printed in a smaller, standard font.

RJH/lsp

Attachment: CDM94-203744

----- CAMP DRESSER & MCKEE -----
 ----- Location: PLAYA VISTA -----
 ----- Concentrations in PPMV -----

Sample ID	Benzene	Toluene	Ethyl Benzene	M/P Xylene	Ortho Xylene	Lab ID	Sampled	Date Received	Date Analyzed	Analyst
6017	< 0.07	0.08	< 0.07	< 0.07	< 0.07	W99A466	10/02/00	10/03/00	10/05/00	JLL
6001	< 0.07	0.10	< 0.07	< 0.07	< 0.07	W99A467	10/02/00	10/03/00	10/05/00	JLL
6008	< 0.07	< 0.07	< 0.07	< 0.07	< 0.07	W99A468	10/02/00	10/03/00	10/05/00	JLL
6014	< 0.07	< 0.07	< 0.07	< 0.07	< 0.07	W99A469	10/02/00	10/03/00	10/05/00	JLL
6015	< 0.07	< 0.07	< 0.07	0.34	< 0.07	W99A470	10/02/00	10/03/00	10/05/00	JLL
6002	< 0.07	< 0.07	< 0.07	< 0.07	< 0.07	W99A471	10/02/00	10/03/00	10/05/00	JLL
6009	< 0.07	< 0.07	< 0.07	< 0.07	< 0.07	W99A472	10/02/00	10/03/00	10/05/00	JLL
6003	< 0.07	0.09	< 0.07	< 0.07	< 0.07	W99A473	10/02/00	10/03/00	10/05/00	JLL
6016	< 0.07	< 0.07	< 0.07	< 0.07	< 0.07	W99A474	10/02/00	10/03/00	10/05/00	JLL
6022	< 0.07	< 0.07	< 0.07	< 0.07	< 0.07	W99A475	10/02/00	10/03/00	10/05/00	JLL
6017	< 0.07	< 0.07	< 0.07	< 0.07	< 0.07	W99A476	10/02/00	10/03/00	10/05/00	JLL
6027	< 0.07	< 0.07	< 0.07	< 0.07	< 0.07	W99A477	10/02/00	10/03/00	10/05/00	JLL
6021	< 0.07	< 0.07	< 0.07	< 0.07	< 0.07	W99A478	10/02/00	10/03/00	10/05/00	JLL
6010	< 0.07	< 0.07	< 0.07	< 0.07	< 0.07	W99A479	10/02/00	10/03/00	10/05/00	JLL
6028	< 0.07	< 0.07	< 0.07	< 0.07	< 0.07	W99A480	10/02/00	10/03/00	10/05/00	JLL
Detection Limits	0.07	0.07	0.07	0.07	0.07					

Detected Limits 0.07 0.07 0.07 0.07 0.07

Quality Control

CDM94-203744

----- CAMP DRESSER & MCKEE -----
 ----- Location: PLAYA VISTA -----
 ----- Concentrations in PPMV -----

Continuing Calibration Standards 10/05/00

Compound	Lab ID	True Conc.	Measured	% Diff.
Benzene	W99A464	1.25	1.24	1.12
Toluene	W99A464	1.06	1.05	1.32
Ethyl Benzene	W99A464	0.92	0.91	1.52
M/P Xylene	W99A464	1.84	1.85	0.49
Ortho Xylene	W99A464	0.92	0.92	0.43

N2 in vial 10/05/00

Compound	Lab ID	Report. Limit (ppmv)	Measured
Benzene	W99A465	0.07	ND
Toluene	W99A465	0.07	ND
Ethyl Benzene	W99A465	0.07	ND
M/P Xylene	W99A465	0.07	ND
Ortho Xylene	W99A465	0.07	ND

Analyst JLLReviewed LL

— CAMP DRESSER & MCKEE —
— LOCATION: (PLAYA VISTA) - LOS ANGELES, CA —

Sample Names	Methane (%) ^a	Methane (PPMV)	Ethane (PPMV)	Ethylene (PPMV)	Propane (PPMV)	Propylene (PPMV)	Iso-Butane (PPMV)	N-Butane (PPMV)	Lab ID	Date Sampled	Date Received	Date Analyzed	Analyst
6007	*	0.99	0.02	0.02	<0.03	<0.03	<0.03	T38 299	10/02/00	10/03/00	10/11/00	MM	
6001	*	4.42	0.09	0.08	0.04	0.07	<0.03	T38 301	10/02/00	10/03/00	10/11/00	MM	
6008	*	0.70	0.03	0.02	<0.03	<0.03	<0.03	T38 302	10/02/00	10/03/00	10/11/00	MM	
6011	*	1.50	0.04	0.02	<0.03	<0.03	<0.03	T38 303	10/02/00	10/03/00	10/11/00	MM	
60'5	*	1.16	0.04	0.03	<0.03	0.04	<0.03	T38 304	10/02/00	10/03/00	10/11/00	MM	
60'2	*	4.04	0.57	0.83	0.23	0.67	0.06	T38 305	10/02/00	10/03/00	10/11/00	MM	
6009	*	1.79	0.08	0.09	0.04	0.07	<0.03	T38 306	10/02/00	10/03/00	10/11/00	MM	
60'3	*	1.13	0.04	0.04	<0.03	0.05	<0.03	T38 307	10/02/00	10/03/00	10/11/00	MM	
6012	*	1.94	0.06	0.05	0.03	0.05	<0.03	T38 308	10/02/00	10/03/00	10/11/00	MM	
6022	*	1.44	0.05	0.04	<0.03	0.05	<0.03	T38 309	10/02/00	10/03/00	10/11/00	MM	
6017	*	1.16	0.04	0.03	<0.03	<0.03	<0.03	T38 310	10/02/00	10/03/00	10/11/00	MM	
60'27	*	1.30	0.03	0.02	<0.03	<0.03	<0.03	T38 311	10/02/00	10/03/00	10/11/00	MM	
FJ21	*	1.48	0.02	0.02	<0.03	<0.03	<0.03	T38 312	10/02/00	10/03/00	10/11/00	MM	
J010	*	2.33	0.11	0.09	0.06	0.06	<0.03	T38 313	10/02/00	10/03/00	10/11/00	MM	
6028	*	1.11	0.03	0.02	<0.03	<0.03	<0.03	T38 314	10/02/00	10/03/00	10/11/00	MM	

DETECTION LIMITS 0.02 0.04 0.01 0.01 0.03 0.03 0.03 0.03 0.03 0.03 0.03 0.03 0.03

* METHANE RESULT TAKEN FROM ALTERNATE DETECTOR

[Signature]
ANALYST *[Signature]*

[Signature]
REVIEW *[Signature]*

Microseeps

CDM94B-203744

***** QUALITY CONTROL *****

----- CAMP DRESSER & MCKEE -----

----- LOCATION: (PLAYA VISTA) - LOS ANGELES, CA -----

CONTINUING CALIBRATION STANDARDS 10/11/00

HE IN LOOP 10/11/00

COMPOUND	FILE ID	TRUE CONC.	MEASURED	% DIFF.
METHANE (FID)	T38 270	30.00	32.19	7.30
ETHANE	T38 270	10.00	10.02	0.20
ETHYLENE	T38 270	10.00	10.03	0.30
PROPANE	T38 270	10.00	10.05	0.50
PROPYLENE	T38 270	10.00	10.07	0.70
ISOBUTANE	T38 270	10.00	10.35	3.50
N-BUTANE	T38 270	10.00	10.49	4.90

COMPOUND	FILE ID	DET. LIMIT	MEASURED
METHANE (FID)	T38 272	0.04 PPMV	ND
ETHANE	T38 272	0.01 PPMV	ND
ETHYLENE	T38 272	0.01 PPMV	ND
PROPANE	T38 272	0.03 PPMV	ND
PROPYLENE	T38 272	0.03 PPMV	ND
ISO-BUTANE	T38 272	0.03 PPMV	ND
N-BUTANE	T38 272	0.03 PPMV	ND

ANALYST INITIALS mh.

REVIEW

HC

MICROSEEPS, Inc.

220 William Pitt Way, Pittsburgh, PA 15238

Phone: (412) 826-5245 Fax: (412) 826-3433

CHAIN-OF-CUSTODY RECORD

Note: Enter proper letters in Requested Analyses columns below.

Analysis Options Note: If analysis D,E,or K is selected, scratch (option) NOT wanted.

C	A	E1 - C4	G	Chlorinated HC
I	B	Hydrogen & Helium	H	BTEX
*	C	Permanent Gases (CH4, CO, CO2, N2, O2)	J	BTEX & C5 - C10
D	Mercury (Soil) or (Air **)	K	TPH (C5 - C10) or (C4 - C12)	
E	TO-14 by GC/MS (Ambient) or (Source **)	L	C11 - C18	
F	601 & 602 Compounds	Other	Specify below.	

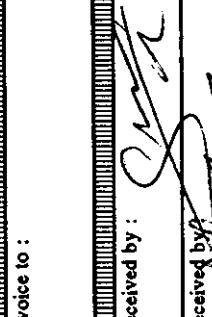
* An additional 22 ml vial of sample is required when requested in combination with another analysis.

** Available upon request.

Sampler's signature : 

Company Name: PLAYA VISTA
Address: 12555 W JEFFERSON
Proj. Manager: MEDICAL TEST
Proj. Location: LA CA 90066
Proj. Number:
Phone #: Fax #:

Sample Identification				Requested Analyses (Other)	Remarks
Collection Date	Number of Containers	*Summary # if Can. used	Sample Type		
10/2/2000	17/18	1	SOURCE	A	
"	1	1		H	
12/25	1			H	
"	1	1		H	
12/30	1			A	
"	1	1		A	
1/5	1			A	
"	1	1		A	
1/10	1			A	
"	1	1		A	
1/12	1			H	
1/15	1			A	
1/15	1			B	

Results to : 

Relinquished by: 	Company: ESS	Date: 10-26-00	Time: 4:10 P	Received by: 	Company: EPM	Date: 10/26/00	Time: 4:10 P
Relinquished by: 	Company: _____	Date: _____	Time: _____	Received by: 	Company: _____	Date: 10-30-00	Time: 12:45
Relinquished by: 	Company: EPM	Date: 10/14/00	Time: 5:00 P	Received by: 	Company: _____	Date: _____	Time: _____

WHITE COPY : Laboratory to return.

YELLOW COPY : Laboratory to return.

PINK COPY : Submitter

MICROSEEPS, Inc.

220 William Pitt Way, Pittsburgh, PA 15238

Phone: (412) 826-5245 Fax: (412) 826-3433

CHAIN-OF-CUSTODY RECORD

Note: Enter proper letters in Requested Analyses columns below.
Note: If analysis D,E,or K is selected, scratch (option) NOT wanted.

Analysis Options		Note: If analysis D,E,or K is selected, scratch (option) NOT wanted.	
A	C1 - C4	G	Chlorinated HC
B	Hydrogen & Helium	H	BTEX
C	Permanent Gases (CH ₄ , CO, CO ₂ , N ₂ , O ₂)	J	BTEX & C5 - C10
D	Mercury (Soil) or (Air **)	K	TPH (C5 - C10) or (C4 - C12)
E	TO-14 by GC/MS (Ambient) or (Source **)	L	C11 - C18
F	601 & 602 Compounds	M	Specify below.

- * An additional 22 ml vial of sample is required when requested in combination with another analysis.
- ** Available upon request.

Sampler's signature : John W. Peterson

Collection Date	Number of Containers	'Summs' # if Can. used	Sample Type	Sample Identification	Requested Analyses (Other)		Remarks
					D	H	
OCT 2 2:55	"		SOURCE	6017	A	H	
			"	6017	A	H	
3:15	"		"	6027	A	H	
"	"		"	6027	A	H	
3:30	"		"	6028	A	H	
"	"		"	6028	A	H	

Invoice to : CDM

Results to :

Relinquished by : <u>John W. Peterson</u>	Company : <u>CDM</u>	Date : <u>Oct-2-xx</u>	Time : <u>4:10P</u>	Received by : <u>John W. Peterson</u>	Company : <u>CDM</u>	Date : <u>Oct-2-xx</u>	Time : <u>4:11</u>
Relinquished by : <u>John W. Peterson</u>	Company : <u>CDM</u>	Date : <u>Oct-2-xx</u>	Time : <u>4:10P</u>	Received by : <u>John W. Peterson</u>	Company : <u>CDM</u>	Date : <u>Oct-2-xx</u>	Time : <u>4:12</u>
Relinquished by : <u>John W. Peterson</u>	Company : <u>CDM</u>	Date : <u>Oct-2-xx</u>	Time : <u>4:10P</u>	Received by : <u>John W. Peterson</u>	Company : <u>CDM</u>	Date : <u>Oct-2-xx</u>	Time : <u>4:12</u>

PINK COPY : Submitter

YELLOW COPY : Laboratory to return.

MICROSEEPS, Inc.

220 William Pitt Way, Pittsburgh, PA 15238

Phone: (412) 826-5245 Fax: (412) 826-3433

CHAIN-OF-CUSTODY RECORD

Note: Enter proper letters in Requested Analyees columns below.

Analysis Options

<input checked="" type="checkbox"/> A C1 - C4	<input type="checkbox"/> B Hydrogen & Helium	<input type="checkbox"/> C Chlorinated HC
<input type="checkbox"/> D Permanent Gases	<input type="checkbox"/> E TO-14 by GC/MS (Soil) or (Air **)	<input type="checkbox"/> F TPH (C5 - C10) or (C4 - C12)
<input type="checkbox"/> D Mercury (Soil) or (Air **)	<input type="checkbox"/> G 601 & 602 Compounds	<input type="checkbox"/> H Other Specify below.
<input type="checkbox"/> E TO-14 by GC/MS (Ambient) or (Source **)	<input type="checkbox"/> I 11 - C18	
<input type="checkbox"/> F 601 & 602 Compounds	<input type="checkbox"/> J BTEX & C5 - C10	

* An additional 22 ml vial of sample is required when requested in combination with another analysis.

** Available upon request.

Sampler's signature : 

Requested Analyees (Other)				Remarks
Collection Date	Number of Containers	"Surname" / if Can. used	Sample Type	
OCT 2	1:50	1	\$1.6M\$	A
"	1			H
2:05	1			A
"	1			H
2:25	1			A
"	1			H
2:35	1			A
"	1			H
2:45	1			A
"	1			H
2:55	1			A
"	1			H

Sample Identification

6009	6009
6003	6003
6016	6016
6022	6022
6021	6021
6021	6021
6010	6010
6010	6010

Invoice to :

Results to :

Relinquished by : 	Company : ZTI	Date : OCT-2-00	Time : 4:09	Received by : 	Company : CDM	Date : 10/12/00	Time : 4:00
Relinquished by : 	Company : 	Date : 	Time : 	Received by : 	Company : 	Date : 	Time : 
Relinquished by : 	Company : 	Date : 	Time : 	Received by : 	Company : 	Date : 	Time : 

WHITE COPY : Laboratory to return. YELLOW COPY : Laboratory PINK COPY : Submitter